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LAUDERDALE'S OVERSAVING THEORY

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1. *Early Writers on the Evils of Saving*

From the time of Adam Smith it has been "orthodox" doctrine that thrift is an economic virtue. Nearly from the first, however, there have been some dissents and of late they have been increasing. The pioneer dissenter was the Earl of Lauderdale in his oft-mentioned but little studied *Inquiry into the Nature and Origin of Public Wealth*, first published in 1804. Soon thereafter, T. R. Malthus also dissented somewhat irrelevantly, *à propos* of rejecting J. B. Say's theory of market gluts ("débouches") which was accepted by Ricardo and his followers. In his general text (1821) Malthus presented oversaving as the cause of the industrial depression in Great Britain between 1816 and 1821. Views similar to those of Malthus were expressed by his contemporaries, Thomas Chalmers and Sismondi.

The debates in Parliament during these years revealed general "bewilderment" regarding the causes and possible remedies for this desperate situation.[1] The commercial and financial depression in the United States at the same time was attributed by tariff beneficiaries to the malevolent dumping of goods by English merchants at cutthroat prices, and this has ever since been a stock argument for permanently high restrictive tariffs.

2. *More Recent Oversaving Doctrine*

Some half-century later the oversaving doctrine was advanced in the United States by an active-minded octogenarian, Uriel H. Crocker,

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[1] See Smart's *Economic Annals of the Nineteenth Century*, Volume I, covering the period 1801-1820.

a Boston publisher, in a series of letters written between 1877 and 1884 and republished the latter year under the title, *Excessive Saving a Cause of Commercial Distress.*

In England, John M. Robertson, later a member of Parliament, championed what he called this "strange paradox," in a volume entitled *The Fallacy of Saving, A Study of Economics* (published in 1892, but written earlier). He recognized Lauderdale as the original proponent of the doctrine.

An indefatigable champion of the oversaving doctrine, especially as used to explain financial crises and mass unemployment, was John A. Hobson. He outlined the theory in 1889 in *The Physiology of Industry*, and expanded it in 1896 into a book entitled *The Problem of the Unemployed, an Inquiry and an Economic Policy.* He acknowledged the priority of "several early economists, in particular Lauderdale and Malthus," whose "analysis of these phenomena" he pronounced "brilliant and sound," "never refuted," and never "disproved."[2] In view of this unqualified endorsement of Lauderdale's "analysis" of oversaving, the following criticism of it applies fully to Hobson, and in a measure to all those who have followed his lead, although some have altered or added details to which they attach much importance.

Throughout a half-century until his death in 1940, Hobson's constant theme was the evil of oversaving. His reward was the wide influence he exerted toward the acceptance of the oversaving doctrine by business men, trade-union leaders, practical politicians, and professed economists. Under such descriptions (besides oversaving) as underconsumption, overproduction, lack of purchasing power, production outstripping consumption, supply for consumables exceeding demand, wages not keeping pace with production (or with technical progress) etc., it is today the most popular theory of crises and depressions, and has become subtly interwoven with belief in a mature economy, the virtues of permanent public debt, and schemes of national planning.

Noteworthy, also, is the high-powered, strongly financed propaganda carried on, mostly between 1923 and 1928, by Foster and Catchings of the Pollak Foundation, in which the stimulation (by monetary inflation) of consumers' expenditure was presented as the common-sense business man's remedy for industrial depression and unemployment, assumed to be caused by thrift. That this propaganda exerted a very considerable influence in the following years is not to

[2] *Op. cit.*, Preface, p. viii. These phrases refer to the views on oversaving, not to those on the sinking fund and permanent debt, which Hobson rejected, as did Robertson. Some recent opponents of saving, as will be indicated below, have, however, given support to the advocacy of permanent debt.

be doubted. After a century and a half, Lauderdale's ideas continue to be echoed and reëchoed in much contemporary economic discussion.

3. *Lauderdale's Views on Parsimony*

In view of this situation it seems timely to reëxamine Lauderdale's pioneer exposition of the oversaving doctrine. In the history of economic thought more attention is given to Lauderdale's distinction between private riches and public wealth than to his doctrine of oversaving, although the latter has had the greater influence upon theory and practice. Our attention is limited here to the oversaving doctrine as set forth in Lauderdale's fourth chapter, entitled "Of Parsimony as a Means of Increasing Wealth."[3]

Lauderdale defined parsimony as "abstinence from expenditure and consequent accumulation."[4] He used the word parsimony, the reader should always bear in mind, as a perfect synonym of saving, abstinence, and frugality, not as having any distinctive opprobrious meaning such as niggardliness or miserliness which, since his time, it somewhat vaguely has come to have. His attempt, however, was to give to parsimony and to all its synonyms a new opprobrious character of an act that diminishes both private riches and public wealth.

The two terms, private riches (or "capital" of individuals) and public wealth, which were strongly contrasted earlier in the *Inquiry*, are used indiscriminately in most of the discussion of parsimony. Both are said to be decreased by parsimony—riches, primarily, but wealth as a consequence. In nearly every branch of the argument there is implied a last minute admission that parsimony may in fact increase private riches, but that it does not increase public wealth in the same proportion, or may diminish it.[5]

4. *The False Issue Joined with Smith*

Lauderdale attacked the doctrine of parsimony as phrased by Adam Smith: "parsimony, not industry, increases capital"; and "capital can only be augmented in proportion to what can be saved out of revenue."[6] To Lauderdale the error of this doctrine appeared self-evident, for

[3] Our citations are to the second edition of the *Inquiry* which appeared in 1819, and which, as the author truly said, made "no change in the doctrines."

[4] Pp. 199-200. On the proviso see below, Section 5.

[5] See below, Sections 11 and 13. The author in the earlier chapters described riches extensively as consisting of things having value in exchange because of their scarcity and of human desire for them; but he dismissed the nature of wealth with a scant phrase or two, assuming merely that it was somehow different from riches and more important, but not making clear just how. However, it is not a part of our present purpose to pursue this puzzling question further.

[6] The citations to the 4th ed. of the *Wealth of Nations* seem to correspond with the Cannon ed., Volume 1, pp. 320-23.

parsimony "cannot be a method of increasing public wealth, because wealth can alone be increased by the same means by which it is produced," (that is, by "industry," as he had previously argued). But because of the "esteemed authority" of Smith, and of "public prejudice" in favor of this error it was "necessary to enter into a more minute examination of this opinion."[7] As presented by both Smith and Lauderdale, parsimony and "industry" are mutually exclusive causes of capital (and wealth), each offered as a sufficient explanation of the method by which capital and wealth are increased.[8]

The question whether parsimony alone or "industry" alone (production) is the *sole* cause of capital accumulation posed a false issue. Each proposition assumed the presence of the other condition whose influence it denied. Smith assumed that production preceded saving (otherwise there would be nothing to save), and Lauderdale that saving followed production (otherwise both riches and wealth would be at once consumed). According to Smith, all production was due to labor alone; Lauderdale included natural agents and capital among the "sources" of production.

The difference of view regarding the effects of saving was partly due, no doubt, to confusion between the idea of a *flow* of perishable consumables and that of a *stock* of durable productive agents—a confusion shared by both authors.[9] Not until our own generation was conservative abstinence recognized as distinguished from cumulative abstinence, and its necessity to conserve from early and rapid destruction the stocks or stores of "capital" and natural resources.

5. *The Argument that Labor Alone Can Augment Capital*

Lauderdale first denied that parsimony alone can increase either the riches or the wealth of a whole society (implying, however, that it can increase the riches of some individuals). He later advanced to the more extreme proposition that parsimony can only do "mischief"; it reduces both the riches and the wealth of a society (p. 206). "Fortunately, however, for mankind . . . the effects of parsimony are

[7] Pp. 200-01. However, another motive is revealed in these words: "And the more so, as it has given birth to an erroneous system of legislation, which, if persisted in, must infallibly ruin the country that adopts or perseveres in it." The reference is to the sinking fund system. See below, Section 16.

[8] In the passages quoted from Smith, only the term "capital" is used, and "wealth" is not mentioned. Elsewhere, however, Smith uses the two terms without distinguishing their meanings, a confusion which Lauderdale sharply criticized in the earlier pages of the *Inquiry*. However, only the slightest and vaguest attention to this distinction is discernible in his own treatment, and frequently he abandoned the attempt to combat either aspect of Smith's opinion, and shifted to another contention. (See Section 11.)

[9] See below, Section 9.

uniformly counteracted by prodigality." How, then, can either capital or wealth ever be increased? His answer was that an increase of riches can occur only when "increase of industry," (or "additional exertions of industry," or "an additional portion of industry") becomes available without "withdrawing a portion of labor from the production of consumable commodities."[10] Such an increase of industry can sometimes occur, Lauderdale suggests, when labor is "rendered unnecessary by capital employed in executing newly invented means of supplanting labor" (p. 220). It is plain that what he has in mind is that men will then abstain from the enjoyment of additional consumables (to the full amount made possible by the invention) and will conserve and use the new productive capacity to create new and better capital agents, and will become "richer" by the amount of their value. In any tenable sense of the term, this is saving, but by Lauderdale's tricky definition it is not saving at all, because it does not necessitate an actual reduction in the amount of consumables (either of the previous year or some vaguely conceived average in the preceding period). As a commonly observed fact, the greater part of the saving in modern communities is of this nature. It is the action of fairly well-to-do or rich savers that are not skimping and denying themselves the enjoyment of their habitual amount of consumables, but are nearly every year putting aside some portion of their incomes in excess of the amount needed to maintain previous consumption, and thus are adding it to their capital (are becoming richer). This sort of saving can, of course, be repeated indefinitely, steadily increasing the amount of capital, yet according to Lauderdale's proviso, this is not saving at all.

6. *Argument that Newly Accumulated Capital Has No Possible Uses*

Running throughout the whole argument against saving is the tacit assumption that the amount of "capital" usable to effect any increase whatever of value is an absolutely fixed amount in any given state of the arts. Up to that point ("a sufficiency . . . of capital") its use is said to be in the highest degree advantageous in the particular application, with a hint that this advantage is offset if the capital is accumulated by saving. Indeed, Lauderdale modifies and virtually abandons his case against parsimony up to this point when he says: "If his supply . . . of capital is not sufficient . . . he might increase his wealth by abstracting a portion of his industry from the formation of consumable commodities and applying it to augment his capital . . . yet . . . he could not long continue without producing a positive

[10] See, *e.g.*, pp. 204, 206-08, 210. Observe the last proviso.

diminution of opulence"—evidently because his capital would after a time become more than "sufficient."[11] "Thus, it appears, that parsimony . . . may, *if pushed beyond the bounds of discretion*, be the means of materially diminishing the wealth of an individual."[12]

Utterly absent is the thought that the range of usefulness of capital is in any degree elastic, so that the advantage of increasing its amount may decline gradually, not abruptly. On the contrary, it is said that "a certain quantity . . . may be profitably employed" in any "existing state of knowledge," and the constant implication is that, except rarely, this sufficient amount somehow is at hand. This conception of the use of capital appears repeatedly, and when other arguments fail, all that is left is the truism that parsimony is sheer waste when it merely creates worthless new things, and therefore income might better be spent for present consumables. Thus, in large part, Lauderdale is crusading not against parsimony in general, but only against the futile parsimony of those who (as he imagines) blindly go on limiting present enjoyment in order to accumulate utterly useless and valueless agents. Yet he assumes that he is making good his charge against saving as it normally occurs.

Another reference to Smith's alleged errors implies that his doctrine of parsimony is an object of "ridicule" solely, or mainly, because it assumes the possibility of an "unlimited increase of every branch of that description of the property of a country which constitutes its capital" (pp. 225-26). But Lauderdale really disposes of his own argument when he recognizes in the context that beyond the point where it can "profitably be increased" capital "will not naturally increase . . . because . . . its value . . . must diminish in such a manner as effectually to check its augmentation" (p. 225). He appears to be confused between two thoughts: one, of a point where new capital has no valuable uses whatever; and, two, of a point where new capital still has some value in various productive uses, but not as great as the value it would have if used to maintain or increase the volume of present consumables. He did not see that it is at the latter point, not at

[11] Pp. 207-08.

[12] Pp. 208-09. This is put even more plainly as follows: "For as [an individual] cannot desire a greater quantity of capital than can be used . . . an additional quantity cannot appear to him an object of desire; and, therefore, cannot be considered as wealth" (p. 208). "A community may suffer from the creation of more capital than is requisite . . . for the moment a thing . . . is produced in such a quantity that the whole cannot be employed—a part ceases to be an object of desire" (p. 215). Again, to this effect: "Capital must at all times have its limits, beyond which . . . it cannot be increased to advantage. In every state of society, a certain quantity of capital, proportioned to the existing state of the knowledge of mankind, may be usefully and profitably employed in supplanting and performing labor" (p. 224).

the point of utter lack of value for any purpose, that saving actually stops. He caught scarcely a glimpse of time preference.

7. *That Saving Reduces the Value of Present Consumables More than It Increases that of the New Capital Agents*

The problem, as Lauderdale usually saw it, was to determine the effect of withdrawing "a portion" of the demand for consumables and adding just that much to the demand for productive agents (pp. 202, 606). If (a) these two classes of commodities were producible by the same agents (raw materials, "capital" and labor) in just the same proportion, and if (b) the transfer of agents were immediate and frictionless, the demand for and the value of, the various agents would, it seems, not be increased. But Lauderdale simply assumes that the "labor" employed in making new productive agents is of a different kind from that formerly employed in making consumables, and observes that when "any member of the society, by parsimony, accumulates capital, it must create an immediate demand" (evidently meaning additional demand) for the various kinds of labor producing the new productive agents, and thereby increase their value.[13] Moreover, he speaks as if any temporary increase in the value of the particular labor thus employed would be permanent—another untenable assumption.

Further confusion is revealed in respect to the effect saving has upon the cultivation of land. It is first said that "parsimony, which depresses the demand for the produce of land, must discourage its cultivation, and, of course, diminish the demand for capital so employed"; yet the next paragraph expatiates upon "the increased produce of land, occasioned by the wise application of labor and capital . . . for immediate or remote consumption" resulting in "an opulent society" (pp. 220-21). The first and unwarranted assumption is that no land is used for the production of the new capital agents; the second, more reasonable, assumption is that when the stock of capital agents has been augmented, land will be used more intensively or extensively to produce a greater quantity of consumables.

Lauderdale observes that the commodities "immediately consumed" are reduced in value "by the portion of demand" abstracted "from them."[14] As, however, this demand withdrawn from the purchase of consumables (as Lauderdale thinks of it) is added to the demand for non-consumables (new productive agents), it would seem, *prima facie*,

[13] Page 211. The part taken by the other agents (land and "capital") in producing new agents is ignored, thus reverting to Smith's labor theory of value. See *passim*, pp. 202-11.

[14] Page 212. This may mean either their value per piece, or their total value, but the latter fits the context better.

that their increased value would cancel out the loss of the value of consumables, leaving no net loss in the total value of all products.[15] To concede this would be to abandon his argument, and Lauderdale, apparently sensing the danger, attempted to retrieve it by declaring that "a diminution of expenditure" for consumables "must reduce their value . . . in a greater degree than it increases the value of that labor, or of those commodities to the acquisition of which it is perverted."[16] Proof of this would have been a hard task, and Lauderdale deftly sidestepped it by declaring that this "has been already shown," and misleadingly citing as evidence an earlier discussion which has no logical bearing on the proposition in hand.[17]

8. *That Reducing Present Consumption Cannot and Does Not Increase the Future Amount of Consumables*

We come now to what, perhaps, was Lauderdale's basic error, namely, the limitation of his vision to the present results of saving to the neglect of the future results thus made possible. He emphasizes exclusively the present decrease of consumables, ignoring their expected and intended future increase.

The first noteworthy expression of this idea is in these words: "Abstinence from expenditure and consequent accumulation, neither tends to increase the produce of land, to augment the exertions of labor, nor to perform a portion of labor that must otherwise be executed by the hand of man . . . [so we may conclude that] it cannot be a method of increasing public wealth" (pp. 199-200). Consider this assertion as it relates to capital. Lauderdale had rejected the labor theory of value, and had given to capital a coördinate place along with labor and land as a "source" of production. How, then, could he deny that the accumulation of capital makes possible the future increase of products? He seems on the point of conceding this conclusion a few pages later, in these words: "By such a change in the

[15] This relates to the moment after production, but as the new capital agents are more or less durable whereas the consumables are soon destroyed, there would, from that moment, be a net gain of riches (fund of value) as compared with the earlier period. See further on this, Sections 8 and 9.

[16] Page 212, substantially repeated, pp. 213, 214. Significant was the use of the term "perverted," not "diverted" or "converted." It was here that parsimony was stigmatized as "that baneful passion, which has been falsely denominated a virtue."

[17] The section cited, beginning on p. 60, discusses merely "the effects of the diminution of the quantity of any commodity on the value of that commodity" (the degree of elasticity of demand, in more recent phrase) with no reference to the comparative degree in which the values of different commodities change (conversely) when demand is diverted ("perverted") from one to the other. It may charitably be assumed that Lauderdale was innocently confused as to what he had earlier discussed in what he himself called the merely "hypothetical statement" to which he repeatedly referred without warrant as proof of later assertions.

direction of his industry his capital would be undoubtedly augmented" (p. 205). However, he evaded this conclusion by shifting to the irrelevant proposition that "his wealth would not be proportionally increased."[18]

Glimmerings of the truth appear also in this remark: "Capital is not a commodity that is consumed; it is accumulated" (p. 208). Apparently sensing that this was an admission damaging to his argument, Lauderdale hastily resorted to the contention that the newly saved agents are useless and valueless (yet strangely continue to be saved).[19] The thought plainly is of the present moment, when, by saving, productive agents are diverted[20] from the creation of consumables to that of additional capital agents, entirely ignoring the future increase of "opulence" made possible by the newly accumulated "capital." In one breath he says that "parsimony does not augment opulence," and in the next that "if a society increases its opulence in capital," this "must diminish its wealth in articles produced for consumption."[21]

9. *And Without Increasing the Future Fund of Capital*

It is easy, and in that sense it is "natural," to think of consumables as a flow, for they are for the most part perishable and are consumed within a limited period (as a year) in which they become ripe for use.[22] But stocks of consumables are not all instantly destroyed, and different consumables differ greatly in the length of the periods over which their consumption is spread. An inventory of the stock of riches (or of wealth) of a modern community would consist in considerable part of stores of consumables, but in greater part of durable indirect agents (including natural resources) available for present and future use. It is therefore much nearer in accord with actual conditions (though not entirely accurate) to associate the thought of wealth with a stock of durable agents than with a current flow of direct consumable

[18] See below, Section 11.

[19] See Section 6. The double meaning of wealth (or opulence) as consisting now of current consumables and again of an accumulated stock of productive agents is revealed in the following passages: "Parsimony does not augment opulence; it only changes the direction in which the labor of a community is exerted; . . . if a society by parsimony increases its opulence in capital, it inevitably must diminish its wealth in articles produced for consumption" (p. 210). Here, again, Lauderdale disregarded his own distinction between wealth and riches, and resorted to the use of "opulence" as an ambiguous term conveniently meaning either or both. See also pp. 207, 208, 210, 211, 221.

[20] Again lapsing into the labor theory of value, he speaks of labor alone as being "diverted to" "the increase of capital," ignoring the participation of other agents.

[21] Page 210. When Lauderdale says that saving "must diminish" the production of articles "for consumption," he is merely repeating his definition of saving. (See Section 3.) It is not a conclusion arrived at or even discussed in the course of the preceding argument that saving reduces (necessarily) the riches, wealth, or opulence, of the society.

[22] See above, Section 4.

goods. The comparison between the wealth of a nation (as a state, or condition) at one time and at another time, and between the wealth of one nation and that of another, must be made mainly in terms of their *stocks* of indirect durable agents rather than in terms of their current flow of consumables.

Such a conception of wealth as a stock, or fund, is scarcely discoverable in Lauderdale's treatment. He constantly speaks of wealth (and also of opulence) as if it were measurable only in terms of a present flow of consumables. Indeed, he makes this confusion serve as another argument against saving; saving is said to reduce wealth because it diminishes the present *flow* of consumables (below the maximum possible) ignoring the additions to the future *stock* of durable productive agents which present saving makes possible.[23]

10. *That Saving a Part of One Year's Income Sacrifices a Perpetual Series of Like Annual Amounts*

Near the close of the arraignment of saving comes a remarkable argument, in these words: "The abstraction from expenditures of a sum equal to what is added to the capital of the community causes a diminution of production to that extent; parsimony must be considered as a means of creating capital at the expense of sacrificing a revenue as great as the capital created; and it does not appear that a more ruinous operation in all its bearings can be devised than that of disposing of *an annual income* (for example, of a million) for the purpose of acquiring a capital to the same amount."[24]

Observe the peculiar use of words in this passage. Using a portion of current income to increase one's fund of capital for investment, or of more or less lasting productive agents, is said to be "sacrificing" the "revenue"; and spending a portion of a single year's income for comparatively durable agents instead of for consumables is called "disposing of an annual income." In the usual sense of the terms, the revenue saved has not been either sacrificed or disposed of, for it or its equivalent is still in the owner's possession, making him by so much richer than he would have been.

Equally confusing is the use of the phrase "an annual income"; for what is saved "for the purpose of acquiring a capital of the same amount" is not "an annual income" in an admissible sense (suggestive of a series of equal incomes during a period of years), but is merely a portion of one year's income. The saver may or may not choose to save

[23] Adam Smith had introduced the idea of wealth as "all the necessaries and conveniences of life . . . annually consumed," instead of the ordinary view. See Cannan's first note, p. 1, of his edition of *The Wealth of Nations.*

[24] Page 217. Italics added.

the same or a different sum in any succeeding year to add to his more lasting fund of capital. A possible explanation of the author's sarcastic description of this as a "ruinous operation in all its bearings" is that, grasping for arguments, he momentarily confused the value of the capital increase (which is equal to but one year's savings) with the present worth of "an annual income" "disposed of" or "sacrificed," (the present worth of which is twenty or twenty-five times as great as the capital-increase). Nowhere else, however, was this preposterous idea plainly expressed, but that it was vaguely present in his thought can hardly be doubted.

11. *The Issue Shifted to Comparative Increase of Riches and Wealth*

Repeatedly when Lauderdale sensed his argument had failed to prove that saving is powerless to increase either riches or wealth, or both, he tacitly abandoned the issue and shifted to the quite different proposition that, although saving can augment riches, it cannot augment wealth *to the same degree* (or *in the same proportion*). This was merely a corollary of the doctrine fairly well established in the earlier chapters of the *Inquiry*, that the two concepts, private riches and public wealth, are not identical—that private riches (total value) may sometimes be increased by greater scarcity (natural or monopolistic), while increase of public wealth means greater abundance.

This fallacy is endlessly repeated. It is first conceded that an augmentation of a man's capital "is very beneficial," "in the highest degree advantageous," and "desirable," but (as if it were a contradictory statement) it is said that "increase of industry is the only means by which . . . he can *at once* augment his capital and his wealth."[25] In speaking of the possibility of a man's shifting "a portion of his labor" from the production of consumable goods to the production of things "useful in supplanting labor," it is said that "his capital would be undoubtedly augmented; but it is evident his wealth would not be *proportionally* increased."[26] A confused paragraph in which is discussed the shift of "labor" from one consumable commodity to another consumable (not to producing capital-agents) concludes quite irrelevantly with the assertion that "additional exertions of industry that occasion no diminution in the production of consumable commodities must be regarded as the sole means by which a man . . . can at once increase his capital and his wealth in the same proportion" (p. 206). Again it is said with triple emphasis on the lack of identity of wealth and capital as the sole contention: "A society, like an individual, can *alone*, *at once*, increase its wealth and its capital *in similar*

[25] Page 204. Italics added.

[26] Page 205. Italics added.

proportions, by additional exertions of industry."[27] An attentive reader is often left with the impression that this is all that is meant by the strenuous denial of Smith's proposition, although the author himself thinks he is proving something very different.

12. *Belief in Parsimony Likened to Mercantilism*

At the climax of the argument, belief in the benefits of parsimony is disparagingly likened to the doctrine of mercantilism, "If indeed, the mercantile system of political economy has justly been deemed objectionable and is now universally exploded, because it exclusively regarded money as wealth, the system that holds parsimony to be the great means of increasing wealth, seems equally objectionable because it exclusively considers capital as wealth" (p. 217). Observe that the sole reason given for objecting to the doctrine of parsimony is that it erroneously assumes riches and wealth to be composed of exactly the same commodities and to be increased by parsimony in exactly the same proportion. But as we have seen, that suggestion shifts the issue from the original proposition that parsimony decreases both riches and wealth, and impoverishes society, to the quite different proposition that it does not increase the two in the same proportion.[28]

13. *Prodigality Lauded as an Economic Virtue*

At the conclusion of his series of arguments, Lauderdale broke into praise of prodigality as the great virtue which alone saves society from the vice of parsimony. "Fortunately, however, for mankind . . . the mischief done by the parsimony and disposition to accumulation of one individual is almost uniformly counteracted by the prodigality of some other; so that, in practice, nothing is found more nearly commensurate than the expenditure and revenue of every society" (p. 226).

Then, as if it were an additional proof of the futility of parsimony, he drew from this alleged fact the following triumphant conclusion: "If the effects of parsimony are uniformly counteracted by prodigality, the public wealth can be neither increased nor diminished by it." Surely as an "if" proposition this is beyond dispute. But if true in fact, Lauderdale's whole crusade against saving is confessedly pointless.

The further disturbing question arises: Must the beneficent effect of prodigality be confined merely to offsetting the evil effects of parsimony? May it not go further and actually increase the riches (and wealth) of a society? It is, of course, difficult to imagine how riches

[27] Page 210. Italics added.

[28] See above, Section 11.

and wealth can be increased by their decrease, yet some modern pleas for greater spending, unbalanced budgets, and deficit financing seem to go to that length.

Here concludes Lauderdale's agile and ingenious argument to prove that parsimony is harmful, whereas prodigality is the real virtue. Throughout, he constantly assumed that what he was showing was that parsimony cannot increase public wealth at all, but what he did was first to attempt to show that saving cannot increase private riches; secondly, tacitly to admit that it can and does increase riches; third, to concede vaguely that saving can and does increase wealth also to some extent; and finally, to fall back upon the proposition that it does not increase wealth in the same proportion that it increases riches.

14. *British Public Debt and the Sinking Fund to 1802*

At this point, midway in the chapter we are examining, the subject is shifted to the sinking fund policy. It will be helpful to an understanding of the issues to glance at the growth of the public debt and of the sinking fund policy in Britain during the 114 years from 1688 to 1802. In that time there had been six periods of war (totaling 63 years) in each of which the public debt had been increased at an ever accelerating rate. In each of the five intervening periods of peace (totaling 55 years) the debt had been reduced by comparatively small amounts, totaling one-twenty-seventh as much as the increases. The last of these periods of peace (1785-92), the only one within Lauderdale's adult experience and the one in which the sinking fund had been most strongly operative, was the one which impressed him most. In that period of seven years the debt was reduced about two per cent, the average reduction per year being about one-third of one per cent of the outstanding debt. The (average) price of consols rose from 60 to 90 and the yield to investors fell from 5 to 3.3 per cent.[29]

15. *Motive of the First Edition*

The dedication of the *Inquiry* was dated January, 1804 (but only in the second edition), and it is highly probable that the work was begun during the Peace of Amiens which lasted barely fourteen months, from March, 1802 to May, 1803, thus disappointing many hopes. In the light of experience in the preceding five periods of peace, it was to be expected that debt reduction would soon be resumed, the more so because the sinking fund recently had been fortified with larger appropriations. In each of the peace periods, while debt reduction had

[29] These figures are derived from Harvey E. Fisk's careful compilations in *English Public Finance*, 1920. "Consols" was the name by which the public bonds, or obligations, were called after the consolidation of the debt in 1751.

been comparatively slight, the price of consols had risen and (reciprocally) the rate of interest on new loans, public and private, had fallen in much greater proportion than the debt was reduced. It should be observed that Lauderdale tacitly assumed these changes to have been caused entirely by the operation of the sinking fund. This is an essential feature of his argument, without which it loses most of its significance, even if otherwise it had some validity. This assumption, both factually and theoretically, is plainly erroneous. The mere cessation of extraordinary expenditures and of public borrowing with each return of peace is enough to account for some lowering of the rate of interest at such a time.

The exaggerated prospect, in 1803, of a rapid fall in the rate of interest was terrifying to Lauderdale. Direct evidence may be lacking that he was an investor, large or small, in the public funds, but his concern for investors' advantage is not disguised by his repeated protestations of concern only for the public benefit.[30] He constantly links the welfare of the country with the continuance of a high rate of yield to holders of the public debt. The existing "distribution of the property of the country" (that is, at the close of a period of war when interest rates are high) is assumed to be "the natural and most advantageous" distribution of property, normally and permanently, and unless the "possessor" of property can continue to receive this high return, his interest "in the property he has to manage" and his "exertions in the conduct of it" will relax to the detriment both of "the proprietor and the public."[31] The paradoxical argument is that the exertions of the active enterprisers to produce commodities will be diminished when they can borrow at a lower rate of interest; and that the public "benefit" must consequently suffer as the end result of saving, because with more capital fewer commodities will be produced and their prices will be higher!

[30] For example, he quotes with approval the statement that the sinking fund in 1727 had "become almost a terror to all the individual proprietors of the public debt . . . proprietors [of the public stocks] apprehend nothing more than being obliged to receive their principal too fast; a million a year was as much as the creditors of the public could bear to receive in discharge of their principal" (pp. 249-50). Again: "The sinking fund, the offspring of this delusion . . . has enabled those who had the management of the government more completely to derange the natural and most advantageous distribution of the property of the country—that distribution, which, giving to the possessor the greatest real interest in the property he has to manage, affords the greatest encouragement to those exertions of industry in the conduct of it, which alike benefit the proprietor and the public" (pp. 266-67).

[31] Here obviously the thought is shifted from the lower rate of interest on the public debt to the correspondingly lower rate of private loans which, not without warrant, is assumed to go along with it (whether as cause or as effect is not here the question). The argument really has no application to the interests, motives, and exertions of the public bond-holders. The "possessors" of property who are mere passive investors, lending their funds of capital, are confused with those who actively "manage" industry.

16. *Circumstances of the Second Edition*

So much as to the outlook in 1802-1804, and the occasion of the first edition of the *Inquiry*. However, the factual prediction that debt would soon be reduced turned out to be mistaken. In 1803 began a longer and much more costly second period of the Great French War, during which and up to 1817, the public debt more than doubled, attaining the record amount of £850 million (4 billion dollars), entailing the highest per capita debt charge in British history until after 1914. During the period 1803-1817 the sinking fund policy continued to operate absurdly and futilely, the new borrowing at higher interest rates usually exceeding the redemption of debt bearing lower rates. The rate of yield on the public funds was undiminished and the fears Lauderdale felt in 1803 proved to be illusory. But after Napoleon was banished to St. Helena came a better prospect of continued peace, and again Lauderdale saw the threat of debt reduction and lower interest rates attributed by him wholly to the operation of the sinking fund. Thereupon he issued, in 1819, a second edition with trivial additions[32] but with no change in the argument, although he confessed that "some of his speculations were unfavorably received." In the period between 1817 and 1833, one-fourteenth of the public debt was paid off, thus partially realizing his prediction of debt reduction, but not his prophecy of public disaster. Although average investor's yield on public bonds fell from some 4 to 3.4 per cent and continued for nearly a century below that figure, British business conditions continued on the whole to improve.

In "apology" for discussing parsimony and the sinking fund at such length, Lauderdale said (in both editions) that "it was necessary, in giving an idea of the origin and progress of wealth to show that it can alone be increased by the means by which it is produced; and this could not be effected . . . without fully explaining why parsimony, whether private or public . . . far from being the means of increasing, must, if pushed beyond a certain extent, prove fatal to the progress of public wealth" (p. 267). The weasel phrase "beyond a certain extent," really abandons the general thesis, admitting that parsimony up to some point may not be adverse to the progress of public wealth, but leaving quite uncertain at what point "parsimony, whether public or private, whether the effect of the depraved taste of individuals, or of an erroneous system of legislation" (that is, the sinking fund) begins to have an adverse effect.[33]

[32] A page-by-page comparison of the text of the first edition (in the Crerar Library) with that of the second edition (in the Princeton University Library) shows that the claim on the title page of the second edition that it is "greatly enlarged" is without warrant.

[33] On this evasiveness of the thesis, see above, Section 6.

However, in glancing back, it is plain that this is not the true explanation of the author's motive for discussing parsimony. It was not "necessary"—certainly it did not contribute—to the further development of the earlier distinction between private riches and public wealth; rather it served to becloud that distinction (which is not without merits). Rather, that distinction appears to have been designed to be used in his later argument against parsimony, and this in turn to serve his main objective, the condemnation of the sinking-fund policy.

17. *All Kinds of Saving and All Debt Reduction Condemned*

If valid at all, Lauderdale's argument would be just as valid against voluntary saving and against the reduction of private debt, as it was against "forced saving" and the reduction of public debt. He recognized this in concluding the chapter we have been examining, and spoke of his preceding discussion as "fully explaining why parsimony, whether public or private, whether the effect of the depraved taste of individuals or of an erroneous system of legislation . . . must, if pushed beyond a certain extent, prove fatal to the progress of public wealth."[34] However, he apparently despaired of overcoming "the depraved taste" of those who saved voluntarily, and he concentrated his attack upon what he called the "forced economy" of the sinking-fund policy (p. 242). He proposed to abolish the sinking fund because (as the law then stood) a substantial sum was raised each year by taxation for the special purpose of reducing the debt, and he believed and feared that purpose would be accomplished. His argument against the sinking fund applies, in principle, against any reduction of the public debt (once it is in existence) by means of taxation, whether the tax proceeds are paid out directly or pass through the sinking fund.[35]

18. *Assumption that Taxation for Debt Redemption Reduces General Demand for Consumables by the Same Amount*

Lauderdale makes the questionable assumption that (to use a current cliché) "the propensity to consume," that is, the propensity to maintain an habitual standard of living in comforts and luxuries, is the weakest of all the motives determining a taxpayer's behavior. This motive alone is supposed to be suppressed to the full extent of the taxation.

[34] Page 267. Note again the phrase "beyond a certain extent" which deprives the statement of definite meaning. See above, Section 6.

[35] The other contemporary objections to the sinking fund policy were for other reasons: the administrative and political difficulties of making it work, and the fact that the debt was not, on the whole, reduced, because the amount of new borrowing actually exceeded the amount of debt retired. It would be better, so the other critics urged, to tax heavily in order to extinguish the debt, and to cease the policy of deficit budgets.

So far as this assumption is incorrect, the case against the sinking fund policy is weakened or falls to the ground. But obviously there are various other ways in which men may react to new taxation. They may, for example, reduce the customary amount of their new investment either in private or in public stocks enough to continue the purchase of the habitual amount of consumables. This accords with common observation better than does Lauderdale's assumption. Or, if a taxpayer is among those whose holdings in public stocks are being redeemed at the time, he may choose to use a part or all of the repaid capital to buy consumables even though this reduces the total inventory of his capital assets.

Such choices are not as thriftless as they might seem at a casual glance. Bondholders are at the same time taxpayers, and the public debt is in the nature of a mortgage on their future taxpaying ability, including the income from their "riches," equal in the case of each to the capitalized value of the series of future tax payments for which each is liable as his share of the interest charge of the existing debt (and for amortization if that ever is to occur). Consequently, the present reduction of the public debt by means of present taxation reduces, by so much, this quasi-mortgage on the future incomes of each taxpayer, in due proportion to his own liability to future taxation for this purpose. If the bondholder uses a part of the proceeds of his redeemed bonds to apply on his taxes for that purpose, he is indeed reducing his capital assets, but at the same time his capital liabilities are being reduced, along with those of all other taxpayers. What is seen is that he is made poorer (in his formal capital accounts); what is not seen is that, to offset this, he is relieved of a future burden of taxation on his remaining capital and taxpaying ability derived from other sources.

19. *Various Classes of Taxpayers in Relation to Debt Payment*

Taxpayers fall, roughly, into three classes, composed of those whose capitalized liability for the future debt-charge (1) is just equal to, (2) is less than, and (3) is greater than, the present taxes they have to pay for the sinking fund. To members of the first class, the present worth of future financial benefits from debt reduction just equals (offsets) the present burden of taxation for that purpose. They neither gain nor lose by the policy. Even when they use the principal of the redeemed bonds to meet taxation for this purpose, and thus reduce their capital (according to private accounting) they are in fact paying off that much of the "mortgage" on their property and other future earning power.

The great majority of taxpayers probably belong to the second class

whose members pay less in present taxes for debt redemption than the present value of future relief from taxation to meet the debt charge. To the members of this group, therefore, the benefit of debt reduction is greater than their burden of taxation for this purpose.

To balance this large group there must be a smaller group (class three) whose members pay a larger share of present taxation for redemption purposes (in varying degrees) than their share of the future debt charge. The members of this group are not necessarily all richer than those in class two, but doubtless many of them are so. This effect is accentuated by the progressive rates of income taxation. The calling of a part of the public debt therefore reduces the present worth of their future liability by less than the present taxes they must pay for this purpose.

Lauderdale does not recognize this as his grievance, which is rather that rich investors are faced with the unpleasant necessity of reinvesting the proceeds of the redeemed bonds at a time when the interest rate on both public and private loans has fallen and, correspondingly, the price of securities of the same grade has risen above the call price of the old bonds issued under the stress of war. His class-conscious sympathies are all with those lenders who, in a sense, were war profiteers and who find it painful to adjust their ideas to the lower rate of yield in peacetime conditions. In this state of mind he made a scapegoat of the sinking fund policy, viewing it as the sole cause of the reduced interest rates.[36]

20. *Debt Reduction Per Se, Not Its Suddenness, Condemned*

The modern student may be surprised to see how little Lauderdale's argument against saving is made to turn on the suddenness of the shift in demand from direct consumables to durable productive agents, as he normally conceived of it.[37] It is true that in some passages the argument seems to point in that direction.[38] A telling case can always be made against a sudden and great shift in market demand of any sort because of the evils it causes, at least temporarily, to some individuals and classes, no matter how and why the shift occurs, whether

[36] See above, Section 15.

[37] See above, Section 3.

[38] This is especially noteworthy where, pp. 257-68, referring to the period 1801-1803, phrases of this kind occur; "The accumulating fund now provided by law, is nearly six times greater than any of which we have had experience during peace," and more emphasizing the great amount and great rapidity of the debt reduction to be expected. Again it is said: "Accumulation of capital must, at all times, have its bounds, beyond which, if it is enforced, the consequences which have been stated must inevitably be produced." On the seeming limitation of the thesis to the evils of a vaguely defined excess of saving, see also above, Section 6.

as the result of natural forces or of human acts and institutions. But this is no proof of an essential long-time injury from the change. A sort of change which, if slow and moderate, would, in universal opinion, be beneficial to society, may cause widespread disaster if it occurs suddenly and on a large scale.[39]

Occasionally there is a faint suggestion that Lauderdale is thinking of business depressions following wars as the main or sole evil caused by "forced" oversaving.[40] But his main thesis is that debt payment decreases both the riches and the wealth of a society no matter how moderately and gradually effected. The oversaving theory of crises is but faintly foreshadowed by him, although it was perhaps the most important later application of his doctrine.

21. *Capital Saturation and the Mature Economy*

Another confusion in Lauderdale's thought regarding the results of increasing capital by means of saving calls for notice. He begins by denying that saving can increase capital;[41] yet he inveighs against saving throughout the book just because it does increase capital and therefore reduces the rate of interest. A basic contention in an earlier chapter (contrary to the labor theory of value) was that capital (as a stock of material agents) is an essential factor (or "source") of production; this implies that greater abundance of capital is conducive to greater production (of consumables or of more productive agents as the saver may prefer). But the argument is shifted from this idea to the notions: (1) that only a strictly limited amount of capital can find any useful (or valuable) application; (2) that this limit is ordinarily attained, and any further saving is sheer waste. There is little, if any, recognition of an elasticity of demand for capital.[42]

The thought comes near to the recent conception of the mature economy. Lauderdale assumed that this limit had been fully attained in Britain, but the contrary regarding foreign countries; they were inferior to England industrially because they were deficient in capital. His final patriotic argument against "forced" saving was that "if this country could, by parsimony, render capital so abundant, as it is impossible to prevent the removal of it, [*sic*] it would be relatively

[39] It is an everyday experience; a man can safely descend the stairs one at a time, but may break his neck if he steps out of an upper story window; the safety valve in a steam engine prevents an explosion. This is in accord with the basic economic principle of the golden mean, yet it is ignored, perhaps, as frequently in economics as in any other field of thought.

[40] For example, p. 89.

[41] Declaring that only production can increase it, see above, Section 5, on this quibble.

[42] See above, Section 6.

injurious to our interest; for . . . such nations . . . whose interests, at present, we would least wish to promote . . . would derive more benefit from it than would result to the British Empire."[43] The curious argument thus was that the financial and industrial strength of Great Britain was due to its greater fund of capital and a lower rate of interest than that in France, yet British capital, strangely, it seems, was not exported to France. But if the rate of interest in Great Britain should, as the result of forced saving, be reduced below its existing level, it would be of no comparative advantage to British industry, for the surplus capital would be loaned to France where it would be of great benefit, France not having reached the stage of a mature economy. So runs the thought.

22. *Dependence of His Argument against the Sinking Fund on that against Saving*

A bird's-eye view of Lauderdale's whole argument, or series of arguments, clearly shows that his main object was to discredit the sinking-fund policy, and he undertook, merely as a means to that end, to prove the general evil effects of saving.[44] He did not rest his case on any single argument, but adduced one after another, as if by numbers he could offset their separate logical weakness and mutual inconsistency. Not one of them was fully developed as the thesis required, to the point of unqualifiedly condemning all saving, but stopped short with the contention that saving cannot with advantage be carried on beyond some vaguely hinted limit of capital saturation (or of a mature economy), with the virtual admission that, until that limit is reached, saving is of considerable, even great, advantage.[45]

The futility of the argument on this issue is the more remarkable because of the intellectual vigor, originality, and acuteness Lauderdale displayed in the earlier chapters of the ***Inquiry,*** where he anticipated in some measure fertile ideas developed three-quarters of a century later. His contemporaries gave scant attention to his argument on saving, although many of them opposed the sinking fund policy for other reasons.[46] In rejecting his thesis against saving, they at the same time rejected or ignored other parts of his work more worthy of attention.[47]

[43] Page 264. "So abundant" apparently meant "as to reduce the rate of interest," and "such nations" meant France and the countries under the domination of Napoloen.

[44] See above, Section 18.

[45] See above, Section 6.

[46] See above, Section 17, note 35.

[47] This is strikingly true of what appears to have been the only contemporary review of the book, that which appeared in the *Edinburgh Review,* Vol. IV, no. viii. It is known to have been written by Henry (later Lord) Brougham, who outdid Lauderdale in the cocksureness of his opinions. It was the irony of fate that Lauderdale's distinction between

23. *Lessons from the History of Economic Doctrines*

The student of economic doctrines discovers various ideas reappearing like the pieces of colored glass in a kaleidoscope, the same essentially in detail, but in ever-changing settings. Something of worth to present thought is, therefore, often to be gained by a restudy of past opinions, even though the first result may seem to be merely to expose their error. Showing that a thing cannot be done in a way that looks promising is often a service of laboratory research second only in value to showing how it can be done. The history of economic thought is the experimental laboratory of economics, or as near to that enviable agency of the physical sciences as social students are able to come. In view of the overshadowing importance of the business-cycle problem and of the place of the oversaving theory in its discussion; in view of the staggering volume of public debt and of influential opinions favoring its permanency; in view of the doctrine of the mature economy and its relation to the oversaving theory, this examination of Lauderdale's original ideas may have not merely antiquarian interest, but may be of practical pertinence in the consideration of contemporary problems.

riches and wealth made a strong impression upon only a few writers—in France, Ganilh, and in America, Raymond and the nationalist school, largely centered at Philadelphia around the Gareys, father and son—who perverted it into an argument for restrictive tariffs, a use which Lauderdale would have deplored. See the writer's paper on "The Early History of Political Economy in the United States," in the *Proceedings* of the American Philosophical Society, Vol. 87, No. 1, 1943.

THE FUTURE OF KEYNESIAN ECONOMICS

By David McCord Wright*

Economic theory, like the Supreme Court of the United States, often reflects the state of public opinion, while public opinion is well known to be related to fluctuations of economic activity. At the present time increasing prosperity seems to be bringing with it a growing reaction against Keynesian teaching.[1] Criticism of policies and theories, sometimes rightly and sometimes wrongly attributed to Keynes, reaches from newspaper columnists of various degrees of economic training through the academic work of von Mering and Hahn to the fundamental theoretical dissent of Professor Frank Knight.[2] Under the circumstances, it seems likely that the present trend will go considerably further before it is reversed.

That a theory so obviously depression-born as Keynes's should lose some of its appeal in prosperity is not surprising. When we are struggling with labor shortages and inflation, references to unemployment and deflation seem out of date. Nor can the Keynesian theory—any more than any other—claim a complete immunity from error. The present paper will attempt to develop some of its shortcomings. Nevertheless, a fundamental question presents itself: Shall we allow ourselves during prosperity to forget the problem of effective demand which forms the core of Keynes's teaching? That is the real problem.

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[1] By "Keynesian teaching" and Keynes's theory I shall mean in this article the body of analysis presented in the *General Theory of Employment, Interest and Money*. In other words, I am not attempting to discuss the private personal views of Lord Keynes at the present or any other time but only to evaluate the body of analysis presented in a specific book.

[2] As an example of criticism of "Keynesian" ideas on a more popular level see J. H. Crider, "It's Your Money, Brother," *Saturday Evening Post*, February 26, 1944. For academic criticism, see L. Albert Hahn, "Deficit Spending and Private Enterprise," *Post-War Readjustment Bulletin* No. 8 (Chamber of Commerce of the United States, Washington, 1943); Otto von Mering, "Some Problems of Methodology in Modern Economic Theory," *Am. Econ. Rev.*, Vol. XXXIV, No. 1 (Mar., 1944); Harold G. Moulton, *The New Philosophy of Public Debt* (Washington, 1943); Harold G. Moulton, George W. Edwards, James D. Magee and Cleona Lewis, *Capital Expansion, Employment, and Economic Stability* (Washington, 1940); on a still more technical level, see Frank H. Knight, "The Business Cycle, Interest, and Money: A Methodological Approach," *Rev. Econ. Stat.*, Vol. 23 (May, 1941). These particular articles are mentioned only by way of instance. Numerous others could be given and other writers mentioned but the writer does not feel any useful purpose would be served thereby.

There is a tendency occasionally present today, especially in the popular press, to divide economists into two classes, "Keynesian" and "anti-Keynesian," or "orthodox," and to imply that an unabridgable gulf lies between them. Such a mode of thought seems both inaccurate and unfortunate. It is inaccurate, because it would be difficult to find an American economist today, of whatever shade of political opinion, who does not make use of some elements of the Keynesian schema. It is unfortunate, because it leads to loose generalization and, by giving a spurious appearance of disagreement, undermines the prestige of economics in the vitally important fields in which there is substantial unanimity.

The present essay is to be viewed as an attempt to overcome this impression of fundamental cleavage and to reconcile some of the apparently wide divergences of thought. No one can deny that there are great differences today regarding proposed economic policy. But that such divergences reflect a basic theoretical cleavage seems to the writer much more doubtful. If economists would only state the sort of world at which they are aiming, and the conditions which they are assuming regarding the present one, they would find themselves, it is submitted, in very considerable analytical and theoretical agreement—whatever differences in emotional attitude, social aim, and factual assumption might still survive. Have we not reached a point in which Keynesian theory can be viewed in accurate proportion? Let us try in this paper to relate the system to the views which preceded it, evaluate its policies, and reach some conclusions regarding its future.

I

It is probable that the Athenians did not execute Socrates so much for the things he had said as for the things they thought he had said. The analysis presented in the *General Theory* is widely disliked because of certain supposed doctrines which in fact form no part, or, in some cases, no essential part, of the basic analytical structure. In particular, in business circles in this country, it seems often thought that there is something occultly "radical" or anticapitalist about the Keynesian schema. This is scarcely justified. In criticizing the *General Theory* it is important to distinguish between (1) a body of authoritative scientific analysis and (2) the personal opinions, as of 1935, of one Mr. Keynes, a somewhat discouraged liberal, regarding fact and policy. The difference is almost always clearly labeled. Most of the points particularly criticized today come in Chapter 24, "Some Notes on the Social Philosophy Toward Which the General Theory *Might* Lead" (italics added), and this chapter clearly belongs to the second category

I have named. It is not an integral part of the scientific analysis which precedes it, and, moreover, if the writer interprets it correctly, is rather tentative in nature. Let us then, excluding this chapter for the time being, run over some of the main conclusions which are often erroneously thought to be an inevitable concomitant of the Keynesian method.

1. The Keynesian analysis does not in itself "prove" that we "have" to have socialism, or socialized investment, or that capitalism is "bound" to destroy itself.[3]
2. The Keynesian analysis does not necessarily prove that there will "certainly" be long-range unemployment after the war (or at any other time).[4]
3. It does not necessarily depend save in a purely formal sense either on rigid prices, rigid wages, or "hoarding" to show possibilities of unemployment equilibrium.[5]
4. It does not say that a rising national debt is always necessary or that there is no burden to the national debt.[6]
5. It does not say that spending is always a good thing or that "saving" is always bad.[7]
6. Keynes does not believe that every dollar spent by the government necessarily "multiplies" itself several times.[8]
7. Keynes's analysis in the *General Theory* is not an argument for indiscriminate money wage increases to "redistribute" wealth, or "increase purchasing power." On the contrary, he very explicitly favors there a policy of stable money wages.[9]
8. Keynes's analysis does not deny that waye and/or price reduction can at some times and under some circumstances cure unemployment; nor need the argument necessarily be a matter of liquidity preference.[10]
9. Keynes does not favor protectionism or tariffs *per se*.[11]
10. He does not "disregard" in the *General Theory* the possible adverse effects of taxes on profits and of high, progressive income taxes generally.[12]

[3] See Parts III and IV this paper.

[4] *Ibid.*

[5] *Ibid.*

[6] See my "Moulton's *New Philosophy of Public Debt*," *Am. Econ. Rev.*, Vol. XXXIII, No. 4 (Dec., 1943), p. 573.

[7] See, for example, J. M. Keynes, *The General Theory of Employment, Interest and Money* (New York, Harcourt Brace, 1936), p. 377.

[8] *Ibid.*, pp. 122-23.

[9] *Ibid.*, pp. 270-71.

[10] See Part IV this paper; also Keynes, *op. cit.*, p. 264.

[11] Keynes, *op. cit.*, p. 338 *et seq.*

[12] As one example among many, see *ibid.*, p. 372.

11. The *General Theory* is filled with references to the importance of business expectations and business "confidence." There is no ground for saying that these factors are omitted. In fact, a conservative candidate could conduct a political campaign largely on quotations from the *General Theory*.[13]

When this list is read over, and when it is remembered that most of the really startling Keynesian theoretical propositions, as for example on the "equality" of saving and investment, have been shown to be largely matters of definition, the question naturally arises why is Keynes's teaching so disliked in some quarters today? To answer this we must first give as simplified an account as possible of what that teaching is. With so much misunderstanding evident regarding conclusions, it seems plain that there must also be a widespread misunderstanding of the analysis itself.

II

Following the lead of Lord Keynes, the Keynesian schema is usually treated, by opponents and adherents alike, against a background of so-called "classical" thought. The resulting impression is apt to be, first, that there was prior to the *General Theory* some single homogeneous body of doctrine regarding the relationship of employment, interest and money, and, second, that Keynesian teaching represents a marked divergence from that body. Neither of these ideas is wholly accurate and their joint effect seriously warps our perspective on the problem. Both prior to Keynes and today the widest divergences may be found regarding basic factual assumptions connected with the employment puzzle. Nevertheless, the writer submits that it is possible to piece together a composite picture not inaccurately representing the views of a majority of English and American economists prior to the *General Theory*, and he feels that it is in the light of such a picture that the nature of the Keynesian contribution can best be judged. The tradition, submitted to have been probably the prevailing one in this country, will be found (typically) more hinted at than stated by Marshall, and usually developed in American elementary texts in ecclectic combination with some of the views of Böhm-Bawerk, Fisher and Wicksell.[14]

Everybody agrees that in full-employment equilibrium the labor and other resources of society may be thought of as being distributed between two groups: makers of investment goods and makers of con-

[13] For example, see *ibid.*, p. 162.

[14] Alfred Marshall, *Principles of Economics*, 8th ed. (London 1936), p. 534. "A strong balance of evidence seems to rest with the opinion that a rise in the rate of interest, or demand price for saving, tends to increase the volume of saving."

sumers' goods. Everyone further agrees that under such circumstances the proportion which one group bears to the other is roughly determined by the consumption habits of the economy—in Keynes's system measured by the "propensity to consume."

To the English classical writers the rate of interest was, of course, set by the supply and demand for loanable funds but on analysis this will be found to have been usually only the most superficial aspect of their theory. Fundamentally these monetary transactions were symbols expressing: (1) the supply of the commodity real saving—a flow of resources currently set free for investment uses by the failure of society to consume its entire output; (2) the demand for this commodity fixed by current investment opportunities—in the last analysis the current net marginal value product to be derived from the use of newly produced investment goods.[15] The money rate on loanable funds merely expresses the "real" rate—the excess, figured in some ideal numeraire, of real purchasing power returned to the lender, by the borrower, over that which the lender had originally parted with in making the loan.[16] Monetary changes might distort this "real" relationship but, when equilibrium was once more reattained, the real rate would be reëstablished.

So far we are on fairly firm ground but just at this point one encounters a basic cleavage of economic thought which underlies nearly all approaches to the problem and which crops up again and again. To one group of writers—for example, Professor Frank Knight—there is no limit, or virtually no limit, to the uses to which additional increments of capital (the current flow of net new investment) can be put.[17] It follows that, barring "frictions," it is practically impossible to have too large a proportion of the resources of society devoted to making investment goods, and no need to vary this proportion, certainly not to decrease it. Unemployment is to be cured by removing "frictions"

[15] It must always be remembered—*vide* Schumpeter and Böhm-Bawerk—that mere physical productivity cannot explain the existence of any *permanent* value surplus from which interest would be paid. See J. A. Schumpeter, *The Theory of Economic Development* (Cambridge, Harvard Univ. Press, 1934).

[16] The term "real" rate of interest is subject to a variety of interpretations. It may be used *ex post* simply as meaning the actual "real" return from a given loan allowing for changes in the value of the money unit; or, more usually, it may be given a Wicksellian connotation as (a) the rate at which the demand for loan capital just equals the supply of (real) saving, or (b) the rate which would prevail in a barter economy where loans are made *in natura*. Compare Gottfried von Haberler, *Prosperity and Depression* (Geneva, League of Nations, 2nd ed., 1939), p. 32 *et seq*. The Swedes have elaborated these concepts still further with reference to particular credit and price policies which individual writers have thought desirable. Further complication arises from the fact that actual loan contracts are made for a given length of time and that in the interval the "going" rate may change considerably.

[17] *Cf.* F. H. Knight, "Interest," *Encyclopaedia of the Social Sciences*, Vol. VIII (1932), p. 134. D. McC. Wright "Professor Knight on Limits to the Use of Capital," *Quart. Jour. Econ.*, Vol. LVIII (May, 1944).

of various sorts—as by wage reduction, or lowering interest. To another group current potential uses for additional capital may vary greatly over time, necessitating changes in consumption habits and/or state investment.

While one cannot be too dogmatic in this matter it is submitted that prior to Keynes probably the larger number of American and English economists believed that the *current* demand for loanable funds (essentially for the most part demand for the real resources they represented), varied over time with changes in invention, expansion, growth, etc. While John Stuart Mill's view of developed industrial countries as habitually on the "verge" of the stationary state might have been considered extreme, most economists in this country—with varying degrees of optimism regarding the investment outlook at particular periods—nevertheless felt that outlets varied over time, and that a naturally stationary state was at least a theoretical possibility.[18] But if investment outlets varied, how could full employment be maintained?

While the problem was seldom explicitly faced, the answer, it is submitted, would probably have been along the following lines. Current saving behaved like "any other" commodity. When new inventions, etc., temporarily raised the marginal productivity of capital and made it desirable, for the time being, to divert a larger proportion of resources from consumption to investment, the demand for loanable funds (under the assumed conditions thought to be little more than the symbol of the demand for free resources, released by current saving), was raised, and as a result the rate (both real and money) of interest went up. With an increased "price" paid for current saving the amount of current saving "naturally" would increase.[19] Men would be shifted from making consumption goods to making investment goods and all would be well.

If this process should be reversed, when the new opportunities were substantially exploited, and if no new ones had appeared, a greater proportion of consumption would be desirable. This too would automatically be provided for. As investment opportunity declined the rate of interest would decline. Consumption would rise as investment fell and surplus laborers in the investment industries would be moved back into making consumers' goods.

Full employment, then, barring "frictions" of adjustment, and the business cycle, would always be maintained by means of a supposed functional relationship between profits, interest, and current savings.

[18] J. S. Mill, *Principles* (Ashley ed.), p. 731. Much the same idea is embodied in D. H. Robertson's reference to "inevitable discontinuities of investment outlet."

[19] Marshall, *op. cit.*, p. 534. Since the first draft of this paper was prepared Dr. Allan Sweezy has presented a similar analysis. See Sweezy, "Secular Stagnation" in S. E. Harris, ed., *Postwar Economic Problems* (New York, McGraw-Hill, 1943).

If the economy reached a stationary state consumption would rise and the rate would: (1) fall to zero, with no net savings-investment, as maintained by Schumpeter, Irving Fisher and some of the English writers; (2) following some Austrian and Swedish writers, consumption would rise so high, due to time preference, that a certain minimum rate would be maintained since below it there would be capital consumption; (3) other writers, as J. B. Clark, spoke of a "minimum" without giving any very explicit analysis as to what that minimum was or why it would arise. But in any event there would no longer be any net savings-investment and there would be full employment.[20]

Keynesian teaching diverges from the foregoing in three important ways. First of all, as with many other modern writers, emphasis is placed not so much on the technical conditions of production as on the "marginal efficiency of capital"—the *subjective expectation* of future profits to be derived from a newly produced capital asset. This is merely an elaboration of what earlier analysis, if properly interpreted, had meant to say, but it gives a place for the "confidence" and speculative factors which are so important in any real situation. Next, and more important, the Keynesian analysis denies any strong functional relationship, such as has been explained, between the rate of interest and the propensity to consume. To Keynes neither observed aggregate consumption nor the propensity to consume necessarily rises when the interest rate falls. Thirdly, the Keynesians set up a "purely" monetary theory of interest by means of which it is shown that the rate will not fall to zero even when there is unemployment and a "surplus" of free resources.

In addition to these three points the *General Theory* gives such special emphasis to one explanation of the decline in the "marginal efficiency of capital" that many people mistake this explanation for *the* general theory itself. I refer, of course, to the idea that, as production increases, consumption rises but not as much. This concept is the customary point of departure for the most usual account of Keynesian underemployment equilibrium. Because consumption does not keep pace with output, it is said that profit expectations on new investment—the "marginal efficiency of capital"—will eventually be forced to fall, but since the rate of interest does not necessarily fall with it, a point is reached at which the inducement to invest becomes zero. Were consumption to rise all might yet be well but, since the propensity to consume in the short run is relatively invariant, consumption is not likely to rise. A deflationary gap appears, secondary deflation begins, and the economy is forced down to a point at which either the refusal

[20] This classification excludes writers who like Frank Knight apparently deny the possibility of stationary equilibrium.

of people to curtail their standard of living further or the intrusion of new dynamic factors brings the contraction to a close. New dynamic factors, or capital consumption, may then induce some recovery, but there remains a body of men unemployed and, unless something happens to raise sufficiently either the inducement to invest or the propensity to consume, *average* unemployment, despite cyclical variations, is indefinitely prolonged. On one side there is usually, but *not* necessarily, a block of "idle" money; on the other, there is always a block of idle men.

The sequence of events just given is by no means the only possible way in which Keynesian unemployment equilibrium could arise but it is the most usual manner of explanation and will serve as a good point of departure for our appraisal.

III

Our task in this paper is to see whether the foregoing analysis should properly be called "radical" and whether it represents a marked divergence from, or contradiction of, the main current of previously existing economic thought. But first of all, whether radical or not, a large part of it, even on first examination, is obviously true. Of the three main points mentioned above, the first, the concept of the "marginal efficiency of capital," and Keynes's brilliant bull and bear analysis have roused little opposition and are generally accepted. The second, the failure of the propensity to consume in the short (five- or ten-year) period to move inversely with the rate of interest, to any important extent, is so well established empirically as to be incontrovertible. On the other hand, the behavior of the longer-run propensity to consume is more problematical and, as Dr. Samuelson points out, it appears at times to rise spontaneously, so as to overtake output.[21] The views, however, most often challenged in the Keynesian theory are the special theory of the fall of profits, the "purely" monetary interest theory, and the attitude toward price and wage reduction.

Keynes's "normal psychological law" that in the short period, as income rises, consumption rises, but not as much, is probably on balance nearly as well established empirically, as a statement of general tendency, as the broader statement that consumption does not vary inversely with the rate of interest. Yet somehow it has roused much more antagonism. The writer suggests, however, that conservatively inclined writers would accept the doctrine much more readily if they realized that it is not put forward as an *exclusive* business cycle theory, or theory of the collapse of marginal efficiency of capital. Keynes is

[21] Paul A. Samuelson, "Full Employment after the War" in Harris, ed., *Postwar Economic Problems*.

perfectly well aware that there are any number of other forces which might affect business expectations. Though he does not consider the effects of new invention in the *General Theory* (and this, as we shall see shortly, is a very important point), Keynes certainly does not deny that they must be reckoned with in any actual situation.[22]

One does not, in order to follow the Keynesian analysis, have to feel that the failure of consumption to rise, as output rises, is always the sole cause of the collapse, or even in many instances the most important cause. A decline in the rate of invention, or of population growth, or a simple shock to "confidence" might all, at times, be equally important. What one does have to believe is that current investment opportunities *vary,* or rather that they are not "boundless" and in a "given" situation and over longer or shorter periods can be exhausted. Failure of consumption to rise is merely one of many forces which, in a particular case, may potentially cause trouble.[23]

In considering the "purely" monetary theory of interest, this would appear to be the most radical departure from accepted doctrine in the Keynesian system and it has certainly given rise to the greatest amount of misinterpretation. The truth of the matter is that in full-employment equilibrium the Keynesian interest rate theory is supplementary, rather than contradictory, to that of Marshall. Since this point is so widely misunderstood, particularly by many writers influenced by Keynes, it is worth some elaboration.[24]

Keynes, as is well known, says that the rate of interest is "solely" determined by the interaction of "liquidity preference" and the quantity of money. But let us suppose that we have full-employment equilibrium and that some massive new invention is made which greatly increases profit expectations on the use of additional capital. Business men as a result bid against one another for current real savings—*i.e.,* for free resources to be used in producing additional investment goods and exploiting the new opportunity. Pre-Keynesian writers would argue that, unless current real saving increased, the money rate of interest would have to rise, sooner or later, or else there would be an inflation.

But Keynes's theory would reach exactly the same conclusion. *At the same time* in which business men are bidding against one another for free resources they are also bidding against one another for in-

[22] Keynes, *op. cit.,* p. 245.

[23] But see the distinction between "objective" and "institutional" shortages developed below, Part IV.

[24] For a point of view on the problem of Keynesian interest theory rather similar to the writer's, see D. H. Robertson, "Mr. Keynes and Finance," *Econ. Jour.,* Vol. 48, No. 190 and 191. Also *Essays in Monetary Theory* (London, 1940).

creased transactions and precautionary cash balances.[25] That is to say, "by definition," liquidity preference has increased—therefore the interest rate—barring an increase in *M V*—must rise.

Some Keynesians, however, might object that if liquidity preference, due to the "speculative" motive, declined at the same time in which the demand for transactions balances rose, there might be no change in aggregate liquidity preference and hence, barring an increase in *M*, no change in the interest rate. This argument, however, could be true only for a short interval. At best the process would operate only as an increase in the velocity of money. Now, as everyone knows, increases in *M* or in *V* can hold down the money rate below the "real rate"—but, *in* full employment, only at the expense of a price rise. If a limit to monetary inflation is reached, the "real" relationships once more reassert themselves.[26] All this may be put in terms of liquidity preference without in any way altering the essentials of the problem. One can say that, until the "money" rate equals or surpasses the "real" rate, liquidity preference for transactions balances to use in exploiting investment opportunities will be "insatiable."[27]

It is in the case of unemployment that Keynes's interest theory makes its greatest contribution. For if the rate of interest be explained primarily in terms of demand and supply for free resources, or "capital disposal," how can one explain the existence of a rate at a time when "free resources" (starving men) are walking the streets unclaimed? The Austrian minimum rate knows no such problem. With the Austrians, barring frictional and cyclical problems, there is always full employment and free resources are always kept scarce by "time pref-

[25] Haberler, *op. cit.*, chap. 8.

[26] In this discussion I use the term "real" rate in the first Wicksellian sense mentioned *supra*, note 16.

[27] Lord Keynes, it is true, has written, "I hold that we can be quite sure that a rise in the rate of interest (assuming no favorable changes in the demand schedule for investment) will decrease the actual aggregate of savings. This last statement embodies an essential element in my doctrine and offers a useful shibboleth for distinguishing those who fundamentally agree with the underlying thesis from those who differ." ("Mr. Keynes' Consumption Function. Reply," *Quart. Jour. Econ.*, Vol. LII [Aug., 1938], p. 708.) But this statement in essentials reduces to the proposition that, if the money rate were raised above the "real" rate, there would be a deflation and unemployment.

Furthermore, many pre-Keynesian writers would probably see little point in it for they might ask why the rate would go up unless there *were* a favorable change in the demand schedule for investment. Most economists, however, can easily conceive of short-term speculative fluctuations in the demand for money by which the money rate might temporarily rise even though there had been no fundamental change in the investment demand schedule. Practically everyone would concede that under such circumstances deflation would be likely to follow, accompanied by a probable reduction in actual saving. By stressing these possible speculative increases the Keynesian liquidity preference analysis does make a worth-while contribution, but the extent to which it represents any really new discovery, in this respect, can be considerably exaggerated.

erence"—*i.e.*, too high a rate of current consumption to allow a full realization of productive possibilities. Only by some such analysis as Keynes's can one explain why the rate does not go to zero in times of unemployment.[28] The Keynesian theory of the *minimum* rate of interest is therefore a real, a substantially new, and a valid addition to the body of economic science. For the rest the "purely monetary" Keynesian theory is largely a matter of definition, calling attention to certain important short-run speculative factors but not seriously varying the ultimate essentials of the problem.

Keynes's criticisms of Marshall for attempting to derive a theory of interest from the marginal efficiency of capital are not very fair and should apply only to the minimum rate under more or less stationary conditions.[29] It is true, as Keynes says, that, barring change, expansion, etc., and the effects of liquidity preference, investment, under Marshall's line of reasoning, would be carried to the point at which both the marginal efficiency of capital and the rate of interest would be zero. Therefore the marginal efficiency of capital cannot explain a minimum rate in the absence of dynamic factors. But what seems overlooked is that, with dynamic factors and *constant* change, a constant flow of invention, etc., can create new investment opportunities as fast as the old ones are exploited and thus, if invention keeps ahead of accumulation, a permanent scarcity premium on free resources or capital disposal (the "real" rate of interest) could be maintained *though the economy uses no money whatever.*[30]

[28] Keynes's exposition in the *General Theory* occasionally gives the impression of implying that he believes reduction of the rate of interest to zero would suffice to set free adequate investment without increasing the propensity to consume. But such an interpretation seems counter to the whole general tenor of his point of view and Marshallian inheritance.

[29] Keynes, *op. cit.*, p. 184.

[30] Compare Silvio Gesell, *The Natural Economic Order* (San Antonio, Free Economy Publishing Co., 1934), p. 260. "Let us assume that a costly machine is discovered with which everyone can double his present production. This would cause an unprecedented demand for loan-money to purchase the new machine. . . Even if interest upon loan-money had disappeared this enormous new demand would cause its reappearance . . . interest might even reach an unprecedented height."

Gesell's famous "economic parable" so highly praised by Keynes (see Keynes, *op. cit.*, p. 356), tacitly assumes that there are no competing *borrowers*. Even if a man *cet. par.* were willing to give away a store of real wealth without demanding any real premium (interest) in return, in order to save deterioration and storage charges, the appearance on the scene of a crowd of borrowers clamoring against one another and offering higher and higher percentages of the prospective real gain would soon bring about the existence of a real rate of interest—an excess of "value" in the commodities returned over that lent.

Even though one set of opportunities were exhausted, *constant* changes, the appearance of new machines as the old were installed, could forever maintain a real rate of interest. The difficulties of figuring this value excess *in natura* are obvious but do not go to the essence of the problem.

Once we understand the basic factual assumptions of the Keynesian interest theory in this way, even the much criticized observations regarding interest in Chapter 24 can be given an interpretation which, in the writer's opinion at least, serves to reconcile them with much pre-Keynesian thought. In Chapter 24 Keynes is assuming that "contemporary conditions" are virtually those of a stationary state. Population is not growing very much, foreign investment is not growing, important new inventions are not being introduced, tastes are not changing significantly. Yet the propensity to consume remains low. If we think of England in 1935, these assumptions are not without support. If there were full employment, a flow of new capital instruments would be possible which might soon reduce the pure rate of interest to zero. But interest does not fall because, and only because, of liquidity preference. Nothing but the excessive holding of money and other liquidity substitutes prevents a zero rate. Further (though this point is not much developed), there is an implication that even with a zero rate, profit expectations might not be high enough to call forth sufficient investment.[31] Under these assumptions the advocacy of the euthanasia of the *rentier*, of the socialization of investment, etc., all follow quite logically. But *only because of the facts assumed*. The policies suggested in no way follow from the Keynesian theoretical analysis *per se* and if one believes, with the present writer, that these particular assumptions of fact need not be generally true, then quite different results could follow. Keynes did not say that "interest rewards no genuine sacrifice" or that "there are no intrinsic reasons for the scarcity of capital." He said, "Interest *today* rewards no genuine sacrifice" and the word *today* applies to all the discussion which follows.[32] But now in 1945 when "today" has faded into "yesterday," we are entirely free to revise our estimates of "tomorrow"—and with them our suggestions for economic policy.

A survey of the Keynesian analysis would not be complete without mention of price and wage reduction. Here, too, there is much less real conflict in *analysis* between Keynes and most other economists than is usually thought. Keynes admits regarding both price and wage cuts that the release from active circulation of transaction balances may help

[31] Keynes, *op. cit.*, p. 372. There is some apparent inconsistency between Lord Keynes's admission, on the page referred to, that the "motive towards risk-taking" might be "unduly diminished" by high progressive income taxes, etc., and his later implication, p. 376, that the entrepreneurs are so fond of their work that they do not need the profit incentive. This paradox can be solved, however, I believe, by realizing that Keynes is tacitly assuming an institutional framework in which there is little net new investment. See the discussion below, Part IV.

[32] *Ibid.*, p. 376.

satisfy liquidity preference, due to the speculative motive and bring down the rate of interest, with, *ceteris paribus,* favorable results.[33] Regarding wages he also admits that wage reduction may help by producing an "optimistic tone in the minds of entrepreneurs which may break through a vicious circle of unduly pessimistic estimates."[34] Nor does the Keynesian view conflict with Professor Slichter's "selective" wage cut theory.[35] Furthermore, Keynes's analysis does not necessarily deny, though it leaves largely unmentioned, those ingenious sequence constructions by which (provided only that one accept the hypotheses) it can be shown that the general wage level will fall faster than prices and income, or prices faster than income, or whatever sequence the particular writer chooses in order to show that investment may increase as the result of a temporary rise in profits. True, Keynes does not consider that these policies, practically speaking, are very promising, but he does not deny their possible utility under appropriate circumstances, and conservatives should admit that, at least on a purely analytical plane, Keynes's case in which prices fall indefinitely *pari passu* with wages is just as hypothetically possible as their own.

What Keynes is fundamentally attacking is the attitude which blames all, or nearly all, unemployment on the insistence by labor upon "too high" a real or money wage level. If only labor would take a low enough wage, it is said, there would always be full employment. As a consequence it is easy to decide that virtually all unemployment is "voluntary" since, however innocent in intent laborers may be, if they were not "voluntarily" insisting upon too high a wage men would find jobs.

Such a point of view is always a plausible one. First because of mistaken analogies from partial-equilibrium demand-curve analysis, but second, and more important, because it is undeniable that, if men would work for nothing (zero wages) or pay to be employed (negative wages), they *could* all find jobs. Such contentions are true; but what practical relevance do they have? Since of course what people want is not work but work plus pay, since in fact it is only in rare instances that men work for zero or negative wages, the zero or negative wage argument seems irrelevant. Once it is ruled out, circumstances are clearly conceivable in which the most drastic wage reduction (short of zero) would not increase employment. Under such circumstances it is submitted that it is permissible to speak of "involuntary unemployment" and to say that it exists.

[33] *Ibid.*, p. 263.

[34] *Ibid.*, p. 264.

[35] For Slichter carefully faces the problem of effective demand. See S. H. Slichter, "Labor After the War," Harris, ed., *Postwar Economic Problems.*

The contrary view may be largely traced back, it is submitted, to the basic cleavage of assumptions regarding investment outlets already spoken of. Should one accept or approximate Professor Knight's implication that investment opportunities are always "boundless," or nearly so, one may indeed maintain that relatively small wage cuts would serve to break log jams of entrepreneural activity and put people back to work.[36] Thus, without being either inhuman or cruel, one might well say that most unemployment was "voluntary." But if one follows Marshall, Taussig, Schumpeter and many others in believing in the possibility of a stationary state, then during periods of slack investment demand it might well be the case that drastic wage reduction would not increase employment. Once a considerable variability of investment outlet, relative to the propensity to consume, is assumed, the desirability of wage cuts as compared with other policies turns (barring debates of social philosophy) upon the fundamental investment outlet situation. Such I believe to be the position taken in the *General Theory.*

Coming to the matter of price reduction, we must not overlook the suggestion offered, for example, by Haberler that "sooner or later" price cuts will present the hoarder with such bargains that he will find an "irresistible temptation" to dishoard.[37] In the writer's opinion this idea is probably correct, analytically. If one has a million dollars in cash and can buy the Empire State Building for a dime, it is quite likely that one would "take a chance" and do so. But to use this idea as a justification for sole reliance upon wage or price reduction as a cure for depression implies a faith in the strength of the institutional structure of the present system which few people can share. During a violent depression the statement that "sooner or later," some day, at some indeterminate point, things will stop getting worse is more likely to produce revolution than reassurance. Furthermore, even on a purely theoretical plane, dishoarding may stop a contraction, it is true; but there is absolutely no guarantee, if estimates of the future are pessimistic, that dishoarding, induced by price reduction, will make the system expand sufficiently to reattain full employment. One must distinguish between the price cut which impels a man to buy an *existing* real asset and the price policy which will induce him to embark upon the creation of a new one.

Finally, there is a sort of mystical association in many people's minds between Keynesian unemployment equilibrium and "hoarding," and

[36] In fairness to Professor Knight it should be remarked that his doctrine that there is no limit to the use of capital need not necessarily be taken to mean that there is no limit to *current* investment.

[37] Haberler, *op. cit.*, p. 403.

this association lies at the bottom of much of the current cry for the taxation of idle hoards. However, it is perfectly conceivable Keynesian unemployment equilibrium could both arise and continue without the slightest change in *M V* ever having occurred. Suppose some shock to the system which greatly increases the risks of net new investment. As a result people decide not to save but to spend all their incomes. As a result prices in the consumers' goods industries go up, but since no on will expand his scale of operation on any terms, investment goods industries remain depressed and men are unemployed. There is no hoarding, and no change in velocity, but merely a rise in the price of consumers' goods.[38] Some of the more enthusiastic adherents of the idea of taxing idle hoards have forgotten that merely increasing monetary demand does *not* mean increasing employment if risks are simultaneously increased. But this mistake is not fairly attributable to the essential body of the Keynesian analysis.

IV

From the foregoing survey of the essential framework of Keynes's analysis we may conclude that his teaching is not so much a contradiction of Marshallian theory, or its modifications at the hands, say, of Taussig, but a supplemental development. Keynes does definitely break with the idea that (short period) aggregate consumption will rise as the interest rate falls and vice versa, but, save for this, his theory of interest and Marshall's do not contradict each other—rather they deal with different worlds. Keynes's monetary theory (in a non-tautological sense) applies to conditions of less than full employment. Marshall's theory remains correct (as far as Keynes's theory is concerned) in a world in which there is full employment and a brisk demand for capital.[39] Again in the matter of wage and price policy the differences between Keynes and modern economists who disagree with him are often not differences of analysis, but differences of opinion. The dispute concerns which policy, in a given institutional environment, is most *likely* to yield good results. In other words, both sides should grant the theoretical *possibility* of each other's hypotheses under appropriate circumstances. The important problem is which set of assumptions most nearly fits the actual situation at a given time.

[38] In terms of the quantity equation *P* will rise, *T* will fall and *MV* remain unchanged.

[39] This point is well illustrated in Mr. E. V. Morgan's article, "The Future of Interest Rates," *Econ. Jour.*, Vol. LIV (Dec., 1944), p. 340. After a long discussion on Keynesian lines one finds the following: "If on the other hand a high level of employment is maintained, then the importance of the rate of interest as a selector between investment projects will be greater, and if it is necessary to restrict investment in order to prevent inflation it would be better to allow interest rates to rise rather than reimpose controls." (p. 350).

Yet despite the extremely large area of agreement which we have discovered, there are many economists to whom Keynesian economics remains distasteful and who tend to regard it as being, in large part, a depression vagary. In the remainder of this paper the writer wishes to develop two reasons, one justified and one mistaken, which lead many people to dislike Keynes's teaching. He wishes further to offer some suggestions regarding the effect of these two attitudes upon the future of Keynesian economics and economic thought in general.

We have already seen that there are economists who believe that current investment outlets are virtually always and *per se* boundless. If this idea were true, Keynes's teaching would largely be nonsense. The writer has given reasons elsewhere for disagreeing with this doctrine; nevertheless, the matter of investment outlets is absolutely basic and does call attention to one of the most vulnerable points of the Keynesian school.[40] If one were to summarize the weaknesses toward which the Keynesian point of view inclines, as compared with the weaknesses of pre-Keynesian theorists, it is submitted that the divergent tendencies could be compressed within a very simple formula. The "classical" writers tended to pay too little attention to obstacles to effective demand; the Keynesians tend to slur over obstacles to supply. But, as Marshall pointed out in his famous scissors analogy, *both* supply and demand must be considered in any real situation. Here there is certainly much ground for criticism, and the Aristotelian golden mean appears now, as ever, indeed difficult to achieve.

To develop what the writer believes to be the chief weakness of the Keynesian approach we must make use of a not very satisfactory distinction between "institution" or "ideological" barriers to investment, on the one hand, and "objective" ones on the other. Many writers using large elements of the Keynesian analysis tend to consider that "shortages" of investment outlet trace ultimately to "objective" factors —as population growth—largely beyond the reach of policy. Other writers place primary emphasis upon "institutional" factors such as taxation, foreign trade policy, unwise wage policy, etc. It is obvious that practically everything is in the last analysis institutional or ideological—and not least of all the propensity to consume and the birth rate. But when we apply the distinction indicated in a common sense manner, what are the repercussions upon Keynesian theory?

The writer believes both in the theoretical possibility of a stationary state and in the variability over time of actual investment outlets. Nevertheless, it is submitted that usually, and certainly at the present time, the ultimate source of "shortages" of investment outlet is more likely to be ideological or institutional than objective. But does such a

[40] D. McC. Wright, "Professor Knight on Limits to the Use of Capital," *supra* note 17.

point of view destroy the usefulness of the Keynesian system? To the writer it does not. The real distinction should be not between "objective" barriers and "institutional" barriers but between barriers which can be *quickly removed* and barriers which can not. The fundamental problem with which Keynes is concerned is that of effective demand. The basic contention of his theory is that the propensity to consume and the inducement to invest must stand in proper relation to each other if there is to be full employment. The essential weakness of the exchange economy which he stresses is the problem of secondary deflation. The theory is, in itself, as good an argument for trying to increase the inducement to invest, as the propensity to consume. But whatever we do we must act *in time*.[41]

It may very well be true under "given" circumstances that the "shortage" of investment outlet originally precipitating the crisis is due to institutional disorganization (*e.g.*, currency difficulties, etc.) which might eventually be removed, or to international rivalries of a similar character. But while we are waiting for these longer-run policies to take effect, the economic structure may be wrecked by deflation. We must attack both problems at once. A truly rounded policy seeks *both* to maintain effective demand and to bring about a basic adjustment.[42]

It is a weakness of some followers of Keynes—notably Mrs. Robinson—that they tend to see but half of the problem. Such an attitude may be grounded in implicit hostility to capitalist mores, or spring from other sources, but whatever the reason, the result—if applied to a capitalist economy—must be interpreted either as faulty economics or mistaken policy. Such an attitude, for example, easily converts some American applications of Keynesian doctrine into a species of eco-

[41] Which does not mean to say that we necessarily should act *at once*.

[42] I wish to make it clear that this point of view in no way represents a change from the ideas I have been trying to express since I first began to write on economic problems. The charge is sometimes made that certain American authors, including the writer, who use large elements of the Keynesian analysis, favor spending "without adjustment." Such a charge is completely unwarranted as may be seen from the following quotations from my *Creation of Purchasing Power*, Chapter IX: "Purely monetary problems are not to be compared in magnitude with the problem of possible inflationary demands from organized groups." "The constant demands on the part of labor for higher money wages are an obstacle which practically every writer on purchasing power stabilization has mentioned. . . . Hansen . . . Meade . . . Kaldor . . . Ezekiel." "The problem of the labor unions is, however, only one aspect of the general monopoly problem. If we spend money to increase purchasing power, special groups . . . may raise their prices and absorb the additional funds without any real increase in consumption"; or again in Chapter III: "If too enthusiastic a program of progressive taxation were imposed, the inducement to invest might be seriously reduced and the stimulus to consumption"; or in Chapter VIII, "It should be clear though that no program of purchasing power injection which expects to avoid inflation can entirely escape the necessity of taxation at some point of time." Or Chapter IX, "We in the United States are also too prone to minimize the international aspects of the problem. . . ."

nomic isolationism. For even if investment outlets in the United States are insufficient relative to the propensity to consume, due, say, to declining population growth, that still does not explain why we cannot find foreign investment. Again, the monopoly problem, though easily fitted into the Keynesian scheme, is largely left aside in the *General Theory*. The absorption of increased demand by pressure groups of labor and capital, and the consequent failure of employment and output to increase proportionately to a given monetary stimulus, are often slurred over.

Keynes himself could well say that he could not be expected to cover the whole field of economics in one book. However, in the hands of some of those using his analysis, the slurring over of monopoly problems, the ignoring of his warnings as to the adverse effects of excessively heavy progressive income taxation upon the marginal efficiency of capital, the disregard of his cautions regarding money wage changes in *either* direction, have all had serious effects. Few economists, "Keynesian" or otherwise, in this country at least, go so far as to say that we do not need to worry about investment incentives. Nevertheless the idea has been put forward, at times, and derives a certain amount of support from Mrs. Robinson's *Essay on Marxian Economics*. She writes, "With the notion of the supply price of capital, the moral justification of profit as a necessary cost of production disappears, and the whole structure of the orthodox apology falls to the ground."[43]

The genesis of this doctrine is to be found in some unguarded statements by Keynes himself in his "concluding notes." As earlier pointed out, the weakness of that chapter is that it disposes toward incautious generalization from the particular English institutional framework, as of the period between world wars. It is very true that the modern large scale corporation may maintain its business for a long time, and even expand considerably with internal funds, without having any very large, and in some cases without having any, profit expectations. It may also be true (though I think the point overstated) that many entrepreneurs get so much fun out of their work that they would be willing to work virtually for nothing. But these two statements do not add up to the conclusion that profit is not needed in a dynamic economy or that we do not need to worry about investment incentives.

We must be careful to distinguish between investment and *net* new investment; between "rents," wages of management, and monopoly gains, on the one hand, and risk-profits on the other. Whether the entrepreneur enjoys his life so much or not, unless he is working with internal funds *quasi* automatically flowing in to him, he has to borrow

[43] Joan Robinson, *An Essay on Marxian Economics* (London, Macmillan, 1942), p. 74.

or to sell stock, and in order to do so he must offer the would-be purchaser of equity capital some expectation of profit. It is indeed paradoxical that anyone should maintain that investment incentives are not needed, at a time when the scarcity of venture or equity capital has been one of the most vexatious problems of corporate finance in the United States. We need not discuss here the moral pros and cons of capitalism. The only question is: "*Given* the capitalist institutional set-up, are not high profits required in risky net new investment?"[44]

Problems like these may more plausibly be brushed aside in England where net new investment has been proportionately less important than in the United States. The truth seems to be that Keynes's entrepreneur, who needs very little profit incentive to keep him at work, is not the Schumpeterian entrepreneur—the innovator, the moving spirit in a rapidly growing new corporation, in a dynamic capitalism—but a Schumpeterian "manager"—head of some semi-monopolistic trustified, "rationalized," well-entrenched English firm with ample internal funds—one of the uncrowned but probably titled rulers of what has been called the "conservative corporative state."[45] But in America where net new investment is still important, where the arteriosclerosis of capitalism is less advanced, one deals still, in many cases, with a very different problem. Unless we socialize investment it is still necessary to consider profit expectations and the inducement to invest. The Keynesian schema, if such points be overlooked, does contain an implicit possible stalemate. If demand is raised by drastic redistribution, supply may be so discouraged that no new real investment will be forthcoming, and no increase in real consumption.[46]

The fact of the matter is that economists influenced by Keynes have

[44] Since the original manuscript of this article was prepared, Mr. G. F. Shove has made the same point. See Shove, "Mrs. Robinson on Marxian Economics," *Econ. Jour.*, Vol. LIV (Apr., 1944), p. 47.

Mr. A. P. Lerner argues that high progressive income taxes do not hurt the inducement to invest if gains and losses can be made to cancel one another out. The investor is then working "on commission" for the government. But compare this doctrine with Sir William Beveridge's recent statement (*Econ. Jour.*, Vol. LIV [Dec., 1944], p. 161): "The government . . . are fighting unemployment. They ought to be planning for productive employment. But one cannot do that unless there is something one desires *passionately* (italics added) to see accomplished. . . . Experience in peace time has shown that the desire of men who are already above want to increase their profits by investment is not a strong enough motive or sufficiently persistent . . . to produce a demand for labor which is strong enough and steady enough." But after all do men desire *passionately* to work "on commission" for the government at one or two per cent? Furthermore Lerner's doctrine entirely overlooks all the considerations regarding the family motive adduced by Schumpeter.

[45] Compare Keynes, *op. cit.*, p. 373: "Experience suggests that in existing conditions savings by institution and through sinking funds is more than adequate."

[46] Lord Keynes cannot be charged with *overlooking* this possibility in the *General Theory*, but the writer does suggest that he tended to underemphasize it.

been little, if any, more immune to humanity's incurable weakness for false generalization than any others. Some pre-Keynesian writers were guilty of erecting special cases into universal laws. Keynes showed the falsity of their generalization by working out special cases of his own. But he had scarcely done so before some of his disciples showed a tendency to ascribe to Keynes's special cases an equally false generality.

As an example, Mrs. Robinson in reviewing Professor S. E. Harris's *Economics of Social Security* rebukes him for holding contradictory ideas at the same time. "He accepts," she writes, "in the main Mr. Keynes' system of ideas, but also accepts the view that high wages cause unemployment, and that an increase in thriftiness has a direct effect (apart from its reaction on the demand for money) in lowering the rate of interest."[47]

The first of these criticisms illustrates very well the pitfalls of the simplified, aggregate, static technique. There is nothing in Keynes's analysis to prevent one from feeling that too high a rate of wages in some *particular* industry or too rapid a rate of *increase* in money wages generally *may* at some times and under some circumstances cause unemployment.[48] That is what Professor Harris was implying and Mrs. Robinson is quite unwarranted in waving such considerations aside. In the same way an increase in thriftiness could conceivably have, at times, a direct influence on the rate of interest apart—excepting always, of course, "by definition"—from the demand for money. The Keynesian "purely" monetary interest theory, as we have seen, is sometimes and in some senses (but by no means always) a mere logical quibble or tautology.

To summarize, there are many ways in which dogmatic simplification and the slurring of obstacles to supply might prejudice a conservatively minded economist against the Keynesian analysis—especially in the light of certain offshoots which have grown from it. But none of these points touch the basic Keynesian schema. They do indicate an important error of emphasis and, if capitalism is to survive some of the outgrowths of Keynesian doctrine, this lack of proportion must be corrected. But the essential Keynesian framework remains unaffected. It

[47] Joan Robinson, "The Economics of Social Security," a review, *Econ. Jour.*, Vol. LII (1942), p. 242. S. E. Harris, *The Economics of Social Security* (New York, McGraw-Hill, 1941).

[48] Regarding the possibility of too rapid an increase in the general money wage level, it may be true that in the "long run" all values tend roughly to arrange themselves about the wage-unit *if* there is no further disturbance. But a money wage increase might put a special premium on labor saving devices and aggravate short run, technological, frictional, unemployment. Further, if the *trend* upward is too rapid, adjustment may always lag behind. Compare Professor Frank Graham's discussion of some of these points, "Keynes v. Hayek on Commodity Reserve Currency," *Econ. Jour.*, Vol. LIV (Dec., 1944), p. 422.

is entirely neutral and may be accepted as scientific truth by economists of the most diverse political bias.

V

Yet again we are left with the question: Why is the essential Keynesian schema still attacked today? To answer I believe we must probe some of the less justifiable grounds for criticisms. If writers—such as Professor Knight—who approach the problem on various basically different factual assumptions and hence differ from Keynes in essential scientific analysis are left aside, the explanation of much opposition to Keynesian ideas lies, it seems to me, not so much in the specific weaknesses just reviewed as in the uncomfortable nature of the theory itself, especially in the light of traditional American legal and political theory. One can follow the main outlines of Keynes's doctrine and still believe in capitalism, but one cannot follow Keynes's doctrine and believe that capitalism will always and "automatically" cure itself of disturbance and unemployment. There lies the rub.

For if one assumes, as most economists do, that the intensity of demand for new capital instruments varies greatly over time; if one concedes, as statistical figures make unavoidable, that the short-run propensity to consume does not rise as interest and profit expectation fall; if one feels that even drastic reduction in the rate of interest (supposing it to be obtained) does not in the short period necessarily give rise to adequate investment demand; if one admits, with most economists, that wage and/or price reduction cannot *always* be relied upon to remedy the difficulty, then a case is necessarily made out, from time to time, for government intervention of some sort.[49] Mere uncritical reference to "insatiable" wants or unused productive possibilities is no longer possible.[50]

[49] Certain conservative writers might deny this conclusion and say that the thing to do is to prevent the boom by high interest rates instead of "filling in" in a slump. Were one to assume that the economy was initially in perfect adjustment, with full employment, this doctrine might be correct. But our society is already permanently distorted with a relatively overbuilt capital goods industry. Full employment only comes (if then) in a boom. The result is that a policy of preventing a boom would leave us in prolonged slump and unemployment. Furthermore, due to the acceleration principle, any expansion to full employment that is at all rapid would be likely to produce further distortion. See my *Creation of Purchasing Power* (Cambridge, Harvard Univ. Press, 1942), p. 29 *et seq.*

[50] Of recent critics Dr. L. Albert Hahn seems to be among the few willing, apparently, to challenge the Keynesian treatment of this fundamental point. In his brochure, *Deficit Spending and Private Enterprise*, Post-war Readjustment Bulletin No. 8 (Chamber of Commerce of the United States, Washington, 1943), he writes (p. 26): "How is it that no production gets started for articles which would be consumed by the former unemployed? For we cannot seriously maintain that the unemployed, if converted into laborers, would save to such an extent that the product of their labor would not meet demand." As to this it may be said, first, that if reliance is made upon the demand of the

True, it may be argued that much of the variation in investment outlets is institutional in character and that our fundamental task is the removal of these institutional frictions. Again Dr. Samuelson's distinction between the long- and short-run behavior of consumption furnishes a line of possible reconciliation between Keynes and Professor Knight. Knight's view regarding "boundless" uses for capital would be correct if tastes, or if consumption, changed adequately, and perhaps in the long run they might. But whether the trouble be due to institutional barriers or to a temporary failure of consumption to rise, or of wants to change, there remains an interval in which demand must be maintained or deflation will ensue. *Something* has got to be done.

Certainly, as has been indicated earlier, there are other policies besides increasing the money supply which are theoretically adequate under proper circumstances. It is a matter for the specific analysis of particular situations.

But to return specifically to attacks upon the Keynesian schema, it may not surprise economists, particularly European economists, to learn that we cannot always trust the competitive mechanism to straighten things out. In more popular conservative circles, however, especially in the United States, I believe that Keynes's ideas derive much of their unpopularity because they form the most widely known arguments for intervention even though such intervention may be quite capitalist in nature.

The trouble with the Keynesian solutions, both for the cycle and for stagnation, is that they imply effort, thought, policy and discretion. No one policy can have eternal validity in a changing world. As the business situation alters, it is necessary to swing from encouraging expansion to discouraging it—and back to encouraging it again—and to use a whole battery of weapons at appropriate times. True, all this may be done toward preserving adequate general security in a competitive, democratic capitalism; but that will never satisfy individuals who yearn for the automatic self-regulating system which the *laissez-faire* economists thought they had found. "Government of laws and not of men," is an idea deeply rooted in the American mentality, and cherished by nearly all of us, but only in the most ultimate sense is such an ideal possible in a developing economy. Where policies must be changed from time to time, someone must do the changing.

It is because the Keynesian analysis brings out this fact so clearly

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newly employed *alone*, then if they save *anything* it will prevent receipts from covering costs. Next, part of the money costs of selling a given output of goods, under the private enterprise system (which Dr. Hahn is defending), are *profits* accruing to entrepreneurs. If *they* do not spend their receipts, costs and receipts will not be equal. Dr. Hahn's argument, in this respect, would only be correct under communism or some non-profit state in which there was no net saving.

that it is so disliked by the ultra-conservative. Whenever prosperity appears, even momentarily, there are always people to exclaim that "happy days are here again." We are in a "new era." There will be no more depressions. Such an attitude is both childish and dangerous. By encouraging excessive optimism it induces inordinate despair. The true friend of capitalism does not try to claim for the system a performance which it is obviously impossible for it to give. He is on sound ground in pointing out that cyclical fluctuations are an inevitable concomitant of *rapid* technical change; that we cannot avoid one without destroying the other; that nevertheless the proper use of compensatory financial techniques, capitalistically orientated, can reconcile to a considerable extent, within the capitalist framework, the conflicting aims of security and progress; that such a more-secure society would be likely to leave much less room for individual tyranny and oppression than the completely planned state; that the advantages of comprehensive planning and the number of difficulties which it would avoid are absurdly overexaggerated at the present time—all these things the believer in capitalism can say. But he cannot follow the main lines of Keynes's argument and say that the system, left to itself, will always, and "automatically," bring forth sufficient effective demand, for—if we accept Keynes's teaching—that is obviously not true. And if the case for capitalism is made to turn upon a supposed "automatic" power of general adjustment, and if people really try to follow such a policy, a breakdown, it is submitted, is inevitable and the capitalist system will become progressively discredited. We must face the fact that if the case for capitalism is always kept tied up with the case for complete non-intervention, the case for capitalism, in a world demanding security, will be lost.

Thus, in speculating on the future of Keynesian economics, there is room for tremendous development on many lines without destroying the fundamental fabric. There is a need for continued sequence analysis. There is need for less facile manipulation of large aggregates and more particular research. We need less tautology and more investigation. We need a more explicit recognition of our hidden biases and (if we wish to keep the present system) a greater understanding and regard for the essential institutional requirements of capitalism. Obstacles to supply must be given consideration as well as failure of demand. Along these lines the future of Keynesian economics should be one of steady development and synthesis with what has gone before.

But a great danger to Keynesian economics, and economics generally in the United States, is that unwillingness to recognize the nonautomatic nature of capitalism may lead us in prosperity to discard or ignore the greater part of the Keynesian system. Shall we be like army officers

always preparing to win the last war? During a boom, will our graduate students be trained primarily to prevent inflation—and hence be unprepared in slump? Will they in slump be trained primarily to prevent slumps and so let the next boom become an inflation? When will the public and many economists discover that in the realm of policy there is no single eternally valid measure and all is relative? In the future of Keynesian economics there is much room for improvement. But if we turn away from the fundamental system and neglect the warnings which it gives regarding effective demand, it will be a major scientific disaster—a disaster furthermore which, I submit, will appreciably reduce the chances for a survival of capitalism.

THE CHOICE OF EXCHANGE RATES AFTER THE WAR

By GOTTFRIED HABERLER*

I. *The Objectives of Foreign Exchange Policy*

Policy concerning foreign exchange rates has to be subordinated to the general objectives of our international economic policy. These have been clearly stated in official declarations and one of them is to make the currency of different countries again freely interchangeable.

Applied to our particular problem, this implies that we want an exchange rate which equates demand and supply in a free market, that is, a market in which everybody is allowed to buy and to sell currencies of all countries. This is, of course, the ultimate ideal, which cannot be realized at once. All experts agree that in most countries more or less stringent controls of the foreign exchange market will have to be maintained for some time after the war. The scope, stringency and duration of these controls will be discussed later and will partly depend on the rates which are chosen. But certain features of a free market can and should be introduced right from the beginning: The exchange rate of a currency should be uniform, non-discriminatory. That is to say, the same rate should be applicable to all types of transactions and to all individuals, to commodity trade as well as to services, capital and interest payments. Applied to more than two countries, this implies that the rates should be consistent, that is to say, cross rates should be equal to direct rates. Another postulate is that rates should be as stable as possible.

Another partially conflicting objective of foreign exchange policy would be to influence the terms of trade. The realization of this objective would usually imply an overvaluation of the currency, because there is a strong presumption that the setting of a high level of a country's currency (or an appreciation) tends to improve the terms of trade and a low level (or depreciation) tends to deteriorate them.

So long as exchange control is maintained this objective can be attained to some extent, although the abstention from discriminating policies, which is implied by the postulate of uniformity and consistency of exchange rates, imposes severe restrictions on any attempt at doctoring the terms of trade. If exchange controls are altogether removed it will be found that for most countries there is very little or no leeway

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for a manipulation of the terms of trade through variations in the exchange rates.

Still another objective which, however, will play only a subordinate rôle in the immediate post-war period is the creation of employment. This viewpoint was prevalent during the depression years but still lingers consciously or unconsciously in the minds of many people. It is apt to result in the demand for policies opposite to those called for by the preceding objective: employment is fostered by an export surplus and undervaluation of the currency, whereas the terms of trade are (with rare exceptions) improved by an overvaluation of the currency (over- and undervaluation defined with respect to the equilibrium of the balance of payments in the absence of direct controls).

The employment objective of foreign exchange policy will hardly be an important factor immediately after the war; at least it should not be one in a rational system of economic policy, because it is not likely that there will be general unemployment due to a general deficiency of effective demand. That does not preclude the existence of much unemployment in particular industries or regions ("depressed areas"). But this kind of unemployment cannot be effectively dealt with by broad measures, such as currency depreciation or deficit financing designed to stimulate general effective demand. It needs more specific remedies.

II. *The Equilibrium Exchange Rate*

What methods are at our disposal by which the equilibrium rate can be determined?

A method which, *prima facie,* looks attractive would be to let the exchanges fluctuate freely to find their equilibrium position. This does not necessarily mean that there should be no control. In fact, it is certain that a system of "free exchanges" would lead to extremely undesirable results. It would incite capital flight and violent fluctuations. There are very few instances of really free exchanges in monetary history and none that could be called successful. One of the few examples is the French situation between the end of the First World War, when the French franc was unpegged, and its stabilization in 1926.[1] Such a free system would be even worse this time, because people everywhere are much more inflation-conscious than they were in 1919, and, hence, speculative reactions would be very quick.

One might think of a system of control which confined itself to

[1] See R. Nurkse, *International Currency Experience* (League of Nations, 1944), chap. 5. Compare now also Mr. Nurkse's *Conditions of International Equilibrium* (Princeton, 1945), which contains a careful discussion of how to define an equilibrium rate. The problem of definition is also discussed in my note, "Currency Depreciation and the International Monetary Fund," *Rev. Econ. Stat.,* Vol. XXVI, No. 4 (Nov., 1944).

preventing or offsetting capital transactions but allowed freedom to all commodity and service transactions. One difficulty with such a system is that exchange control in peacetime is never quite watertight and if exchanges fluctuate, the tendency toward capital flight becomes strong and serious leaks are likely to develop. This is a very important matter especially for all small- and medium-sized countries with long land frontiers.

If it were possible to prevent speculative capital movements, one of the most serious disadvantages of frequently changing exchange rates would be removed. But there remain other objections. There are speculative anticipations of changes in the exchange rate which are not in the nature of capital movement. Suppose a depreciation is expected and capital movements are effectively prevented. It would then be to the advantage of importers to advance imports and of exporters to delay exports[2] in order to profit from the change in foreign prices resulting from the expected change in the exchange rate. These speculative anticipations would tend to bring about the expected depreciation of the currency and to intensify exchange fluctuations. They could be eliminated only by a more severe type of control which went far beyond the prevention of capital movements. Moreover, frequent changes in the exchange rate are very disturbing to international investment.

There is still another important objection to letting the exchanges find their equilibrium by free fluctuations. Even if speculative fluctuations of all kinds were successfully prevented, and serious inflations avoided, the value of many European currencies, if determined in a free market by demand and supply, would be very low immediately after the war. While these war-torn countries will have very little to export, there will be a strong demand for imports, which would drive up the price of the dollar and other currencies. This condition can be expected to change gradually when production is resumed, thereby cutting down import demand and making available goods for exports. The question is now whether one should try to follow these shifts by letting the exchanges fall to very low levels at the beginning and then raising them at certain intervals, or whether it would be better to aim at a level which can be maintained in the long run. The latter method would imply, first, an overvaluation which would gradually disappear or even give way temporarily to an undervaluation.

This aspect of the question will come up for discussion again later on. At this point we note that a policy of free exchanges is difficult if the underlying situation is subject to rapid changes.

[2] If capital exports were permitted, there would be no incentive to delay exports, for exporters could leave the proceeds abroad until the foreign currency has gone up in price.

The upshot of this whole discussion is that a system of freely fluctuating exchanges is hardly acceptable. Occasional adjustments at irregular intervals is all that can be recommended to assure flexibility. This makes it all the more important to be as careful as possible in the selection of the initial rates.

III. *Purchasing Power Parity Calculations*

The commonly used method of calculating equilibrium exchange rates consists of computing purchasing power parities. Suppose we wish to calculate the rate of the pound sterling in terms of dollars on the basis of purchasing power at wholesale prices. If we take the first six months of 1939 as a base (= 100), the U. S. index of wholesale prices (Bureau of Labor Statistics) was at 140 in 1940; the British price index (Board of Trade) was at 170. Hence the purchasing power parity has changed, as of 1940, in the proportion of 140/170. If the actual sterling rate in dollars has changed in the same proportion, sterling is at purchasing power par. If not, it is either over- or undervalued according to purchasing power parity (at wholesale prices).

Purchasing power parity is at best a very crude indicator and can yield only rough approximations. But it is the only method that yields concrete results. If factors other than relative price changes are taken into consideration, it is hardly possible to derive a definite formula, which, like the purchasing power parity, yields concrete results. The influence of these other factors on the equilibrium rate can only be guessed. These factors can be most appropriately treated within a discussion of the major limitations of the purchasing power parity doctrine (1) under normal circumstances and (2) under war conditions with special reference to the direct controls (price control, rationing, allocation of raw materials, labor and machinery) which seem to deprive the theory of most of its usefulness.

(1) Under "normal" circumstances, that is, in the absence of extensive direct controls of trade, production, consumption, etc., and with trade relationships uninterrupted by war, the purchasing power parity theory is subject to the following limitations and difficulties:

(a) In the base period with which a comparison is made, the exchange rate may not have been at an equilibrium position. The currency may have been over- or undervalued. This difficulty can usually be overcome by choosing the base period very carefully.

(b) There is a choice between different kinds of price indices and price levels. Should we compare the movement of wholesale prices, cost of living, retail prices, prices of internationally traded goods, or domestic prices? This is a rather awkward dilemma. If the index is heavily weighted with prices of internationally traded goods, it is likely to

understate any existing over- or undervaluation of the currency, because internationally traded goods adjust themselves quickly as between different countries. (A well-known example where policy has been misled by the use of a wholesale price index weighted heavily with prices of internationally traded goods is the Czechoslovakian devaluation of 1934. An index was used which understated the overvaluation, and the depreciation proved insufficient and had to be repeated a year later.)[3] A retail price or cost of living index is therefore preferable, but it has the disadvantage that a parallel movement of these indices need not be an equilibrium condition.[4]

(c) Relative price changes are not the only significant factors. Other factors which should be taken into consideration are tariff changes, spontaneous changes in international demand (due to changes in cost, in supply conditions or in consumer demand), capital movements, unilateral payments such as reparations, immigrant remittances, and interest payments (loss of foreign investment income is a good example). It can be shown that significant changes in these items require changes in the relative price levels, that is to say, in the purchasing power parity of the two countries. Take as an example Great Britain after the war. She will have lost a large part of her income from foreign investment and from shipping. In order to equilibrate her international accounts she will have to export more and/or import less. If direct control is barred, this will require a fall of her price level compared with that of the United States.[5] By how much the pur-

[3] For an instructive comparison between the Czechoslovakian and Belgian cases, see *Money and Banking*, League of Nations, *Monetary Review*, Vol. I, 1935-36, pp. 49 *ff*.

[4] Attempts have been frequently made to substitute "cost parities" for "purchasing power (price) parities." (*Cf.* Sven Brisman, "Some Reflections on the Theory of Foreign Exchange," in *Economic Essays in Honour of Gustav Cassels* [London, 1933], pp. 69-74, and recently, Alvin H. Hansen, "A Brief Note on 'Fundamental Disequilibrium,' " *Rev. Econ. Stat.*, Vol. XXVI, No. 4 [Nov., 1944], pp. 182-83. See also my reply to Hansen, *Rev. Econ. Stat.*, Vol. XXVI, pp. 191-92.) The concept of a "cost level" is, however, several degrees more ambiguous than the concept of a "price level." Strange to say, cost of living has been often proposed as a measure of cost in general. (*Cf., e.g.*, Henry Strakosch, "The Road to Recovery," Supplement to *The Economist*, Jan. 5, 1935.) A better indicator would be a wage index. But upon a little reflection it will become clear that a parity theory in terms of wages or any other prices of cost items is subject to the same limitations and qualifications as the ordinary purchasing power parity theory and, in addition to that, would have to make allowance for changes in efficiency of labor and other factors of production. If a country suffers from balance of payments difficulties or a depression in its export industries, it is one thing to emphasize as a cause the relatively high cost of production in its export industries and in industries that compete with imports or to demand their reduction as a cure; it is an entirely different thing to substitute "level of cost of production" for "price level" in the purchasing power parity equation.

[5] But *international* prices (prices of exports and imports) will have to be the same as in the United States, allowing for transportation costs in the broader sense, including duties.

A word may be added on the theory of C. Bresciani-Turroni which has intrigued many people. (See his brilliant article, "The Purchasing Power Parity Doctrine" in *L'Egypt Con-*

chasing power parity has to be changed to secure equilibrium depends on elasticities of demand which are not sufficiently well known. For that reason, it is difficult to appraise quantitatively the importance of these factors.

(d) Why is it necessary at all to compute purchasing power parities? They are supposed to indicate the equilibrium rate of exchange. The latter is defined as the rate which equilibrates the balance of payments, *i.e.*, eliminates gold flows (except in the case of gold producing countries) and equivalent short-term capital movements. It could be objected that these phenomena can be observed directly and that therefore the existence of equilibrium or disequilibrium can be ascertained without having recourse to price comparisons. It is true that the existence of a disequilibrium can be ascertained by watching gold flows and short-term capital movements. But the purchasing power parity is supposed to indicate the approximate magnitude of the changes in the exchange rate which will be required for the restoration of equilibrium. Unfortunately, it is, for the reasons mentioned, not a very reliable indicator.

(2) Under wartime conditions calculations of purchasing power parities are, from one point of view, more useful than under normal conditions. The objections against the use of wholesale prices which we mentioned above fall away. Because the war has interrupted international trade, wholesale prices in the various countries can move independently. Therefore their relative change provides a better measure of comparative price level changes than in peacetime. Moreover, during the war inflationary changes have been very strong in some countries and may overshadow changes in international demand.

In other respects, however, the usefulness of purchasing power parity considerations is seriously impaired. The main reason is the policy of price fixing, rationing, allocation of raw materials, machinery and labor, etc., and the different degrees of severity and stringency of these controls in different countries. It is possible to argue that the existence of these controls makes purchasing power parity calculations entirely inapplicable. Take the case of Germany. Prices there have been more strictly controlled than anywhere else. Black markets

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temporaine, Vol. XXV [1934]. A short version may be found in his *Economics of Inflation* [1937], pp. 107 *ff.*). This author defines the parity in terms of *export* prices. Naturally he finds that a parallel movement of export prices is an equilibrium condition only if the equilibrium terms of trade have not changed. In general, the equilibrium condition is not "exchange rates equal purchasing power parity," but "exchange rates equal purchasing power parity multiplied by terms of trade," taking all three items in index form. (*Op. cit.*, pp. 439 and 112.)

The theory is ingenious and the analysis very instructive, but as a criticism of the purchasing power parity it is a little unfair because nobody, so far as I know, has ever proposed the purchasing power parity theory in terms of export prices.

are probably less prevalent than in any other country. But rations are small and many things which are still available in the United States and in other countries have completely disappeared from the German markets. Is an unchanged price index of goods which are either severely rationed or are altogether unavailable in any way significant for the determination of the equilibrium rate of exchange? This can certainly be doubted; at any rate, special reasoning is required to establish such a significance. The rationale of the ordinary purchasing power parity is clearly insufficient. Why should low prices establish the presumption that a high international value of the currency is indicated, if at these low prices nothing or very little can be bought while in other countries, though prices are higher, rations are larger or goods are unrationed which in the first country have completely disappeared?

Moreover, if there is strict rationing, price control, allocation of labor, machinery and materials, in short, if the whole productive process is thoroughly planned and directed by the government, international trade must also be planned and directed. Imports are not only subject to duties and quotas but may be entirely monopolized or at least supervised by the government. Similarly, exports are completely regulated and at least dependent upon allocation of labor, materials, etc., to the export industries. Exports and imports may be cheapened by subsidies. Under these conditions the exchange rate also becomes a completely controlled magnitude. This is, indeed, the prevalent situation in Europe. In Germany the system of controls has reached its highest degree of perfection.

It will be instructive at this juncture to point out a few relevant characteristics of the German wartime system of international trade. Prices have been more nearly kept stable in Germany than anywhere else in Europe. In most occupied countries, especially in eastern Europe, price inflation has made great progress. With respect to some western European countries, especially Holland, the German Reichsmark was, however, overvalued at the beginning of the war and many Dutch prices seem to have remained below German prices ever since.

Under a free system exchange rates would have been adjusted. The Dutch guilder would have risen relatively to the Reichsmark and the eastern European currencies would have fallen in varying degrees. But Germany preferred to keep the exchanges stable.[6] The consequence was that for some time during war the Reichsmark was overvalued with respect to Belgium and Holland, and sharply undervalued with respect to eastern European countries. In order to compensate for these discrepancies and to insulate the German price structure, a com-

[6] There are numerous exceptions. But the exchanges were certainly not adjusted to variations in the purchasing power parity.

plicated system of export and import subsidies and taxes was introduced. Broadly speaking, exports to eastern countries were taxed and prices of imports from the East kept down by subsidies. In the West, in most instances, imports were taxed and exports subsidized.

The system of taxes and subsidies, intertwined with price control, rationing and allocation, is very complicated and the rates of subsidization and taxation are by no means uniform for each country but differentiated according to types of products and cost of production of individual firms. The system lends itself to monopolistic exploitation of foreign countries. The details are not well known, but its implications for the validity of the purchasing power parity theory are clear: if one is prepared to maintain full control and to utilize subsidies and taxes on exports and imports, one is free to fix the exchange rate independently of purchasing power parity considerations. In that sense, purchasing power parity is of no relevance in a controlled economy.

In what sense, if in any, is it then relevant? The answer would seem to be this: purchasing power parity has a certain relevance and usefulness, even under a régime of direct controls, if we look forward to a period when the direct controls will be abolished,[7] and under the assumption that the direct controls can be abolished without a substantial change in the price level and that duties and subsidies are no longer used to equalize price levels. If the last condition is not fulfilled, purchasing power parity would still be useful in giving an indication of the magnitude of duties and subsidies which would be required to maintain equilibrium under any desired level of the exchange rate.

IV. *Equilibrium with Controls Abolished*

What are the chances that direct controls can eventually be abolished without a change in the price level? Or somewhat more generally: At what price level will it be possible to abolish direct controls? It will undoubtedly be easier to get rid of direct controls at an early date, if prices are allowed to rise than if prices are kept unchanged. A decision to the latter effect may result in postponing for an indefinite period the abolition of direct controls. Of course, in many or perhaps in most or all countries the rise in the price level and the disappearance of direct controls will not be part of a deliberately conceived and executed

[7] As Frank M. Tamagna in his interesting article, "The Fixing of Foreign Exchange Rates" (appeared after the present paper had been set in type, in *Journal of Political Economy*, Vol. LIII, No. 1 [Mar., 1945], p. 66) points out, it would be a mistake to rely much for the calculation of purchasing power parities on black market prices, chiefly because they reflect not only relative scarcities but also risk of detection and punishment for illegal dealings. This does not imply, however, that in cases where black markets have become very widespread, black market prices will not give an indication concerning the price level that may be expected when controls are abolished.

according-to-plan policy. The direct controls may simply break down or become more and more ineffective. Especially in enemy-occupied countries after liberation and in enemy countries after surrender, when the administration is purged, when police power is curtailed, and when general regimentation is loosened and discipline disintegrates, is it unlikely that there will be a smooth transition from war to peace production and an orderly relaxation of direct controls accompanied merely by a gradual rise in prices. In short, inflation will be practically unavoidable.

If the current price level cannot be maintained or if it is not desired to maintain it, the purchasing power parity based on that price level loses its relevance. But the general idea that prices and price levels in trading countries are not independent of one another is still important. Its relevance is this: Suppose a policy of relaxing direct controls is formulated which envisages a rise in the price level of so-and-so many per cent; then the exchange rate should be fixed in such a manner as not to disturb that over-all policy; and in finding the appropriate rate, purchasing power parity considerations will be helpful. Usually, however, it will not be possible to plan things in such detail and to foresee the necessary change in the price level with such precision. It may be that all we know is that prices are going to rise, but not by how much. If that is the case, it is quite natural that the question of the exchange rate cannot be answered with precision; if the price level is not known, no definite purchasing power parity can be computed. What can be done is only this: for different hypothetical exchange rates, it can be said what internal price level they presuppose on purchasing power parity grounds. If, for example, the dollar value of the French franc is set high, equilibrium without the direct controls and without having recourse to equalizing export and import subsidies can be reached only at a comparatively low price level and vice versa.

It should be noted, however, that any such calculation is subject to all those reservations and limitations to which the purchasing power parity theory is subjected even in normal times which were mentioned above. It is quite natural that these limitations should be specially severe, because the war has profoundly changed the general balance of payments situation, so that the equilibrium ratio between the price levels in different countries may differ much from what it was before the war.

V. *The Risks of Overvaluation and Undervaluation*

Since it will be next to impossible to determine the equilibrium rate except by some trial and error, the question should be asked whether it

is better to err in the upward or downward direction? Is it better to risk initially an over- or an undervaluation?

An overvaluation has the following disadvantages and advantages:

(1) It makes the abolition or relaxation of direct controls impossible;

(2) It makes it easier to hold the internal price level;

(3) It may make a later downward adjustment of the external value of the currency necessary, which would tend to undermine the confidence in the stability of the currency and thus strengthen the tendency for capital flight;

(4) It will result in more favorable terms of trade.

An undervaluation (or low initial valuation) has the opposite defects and virtues:

(1) It will facilitate the abolition of direct controls;

(2) It will impart an upward push to the price level;

(3) It will make later downward adjustments of the currency less likely;

(4) It will lead to unfavorable terms of trade.

The first two factors may well be the most important ones. They are closely connected with the price policy which a country expects to pursue. What can be said in general terms without going into the specific position and problems of particular countries is this: The rate should be chosen in such a way as to interfere as little as possible with the price policy which a country is expected to pursue. If a country expects eventually to relax direct controls near the current price level, it should not defeat this policy by adopting a too low level of its currency. If, on the other hand, it is believed that in the process of relaxing direct controls the price level will have to rise, the exchange rate should be low enough to make a higher price level internationally possible.

Since it will hardly be possible in any continental European country to reëstablish an economic system tolerably free from direct controls without a substantial rise in prices, a considerable undervaluation of most currencies with respect to the current purchasing power parity seems to be indicated.

The third factor points unequivocally in the direction of undervaluation. It will certainly make adjustments easier from a psychological point of view, if the initial value of the currency can be maintained—or, still better, if it can be raised—than if it has to be successively lowered.

The terms-of-trade factor has been much stressed in recent discussions. It points in the direction of an overvaluation(for there is a strong presumption that a depreciation has a tendency to deteriorate and

an appreciation to improve the terms of trade. It must be doubted, however, whether it will be an important factor for any of the continental European countries. In the first place, the price level is likely to be in a state of flux in most countries. Therefore, if the exchange rate were set low, export prices would soon rise and the terms of trade would not seriously deteriorate. In fact, if the price level becomes very unstable, it is difficult to foresee what will happen and the presumption that a low rate will lead to unfavorable terms of trade may no longer hold true.

Secondly, if the principle of a uniform exchange rate is upheld and these countries renounce the use of all sorts of discriminatory devices (multiple exchange rates, bilateral clearings, a discriminatory use of duties, subsidies or price control measures, etc.), the scope for monopolistic manipulations of the terms of trade is very much reduced. In fact, it must be doubted whether any single country in Europe east of Russia (acting independently) is in a position to exert more than a transitory influence on its terms of trade by means of keeping the exchange rate high, if it refrains from discriminating between countries and commodities.

All this leads to the conclusion that an undervaluation is probably a lesser evil than an overvaluation. This does not mean, however, that the lower the rate is set the better. At which point the disadvantages of an undervaluation begin definitely to outweigh its advantages cannot be determined on general grounds. If it can be decided at all with any degree of certainty and confidence, it can be done only by taking into consideration the special circumstances and the exact place of any particular country in the world economy.

WAGE CONTROL IN WARTIME AND TRANSITION

By HARRY HENIG and S. HERBERT UNTERBERGER*

This paper examines our wartime wage stabilization program and considers the advisability of extending it throughout the period of transition from war to civilian production. The conclusion reached is that discontinuance of government wage controls would set in motion factors leading to a reduction greater than would otherwise be the case in the wage level, national income and employment opportunities. There are then formulated the broad outlines of a wage stabilization program for the transition period, calculated to minimize these possibilities.

I. *Wartime Wage Regulations*

The program of wage stabilization followed by some time the enactment of regulations controlling other major economic factors, such as production, prices and manpower. Although the National War Labor Board had the authority to settle labor disputes since January 12, 1942,[1] it did not develop a formal set of criteria for the determination of wage rates until October of that year, after the enactment by Congress of the Economic Stabilization act, and the promulgation of Executive Orders of the President issued under this statute. The Economic Stabilization act provided that the President should issue a general order stabilizing wage rates in so far as practicable on the basis of the levels existing on September 15, 1942, except that adjustments necessary to aid in the effective prosecution of the war or to correct gross inequities were authorized. This legislation established clearly that the objective of the wage control program was the prevention of any substantial changes in the general level of wage rates. The Executive Orders[2] which set forth the guiding principles by which the general level of wage rates was to be held constant provided that no change in wage rates could be made except upon approval of the National War Labor Board; and that the Board could approve wage increases only on four narrowly

* While the authors are employed by the Wage Stabilization Division of the National War Labor Board, this discussion represents their personal views and does not necessarily reflect those of the Board.

[1] Authority vested in the Board by Executive Order 9017, Sec. 3.

[2] E.O. 9250, Oct. 3, 1942, initially set forth the instructions to the NWLB. It was later supplemented by E.O. 9328, April 8, 1943 (the "Hold-the-Line" Order) and the May 12 Policy Directive of the Director of Economic Stabilization.

circumscribed grounds, and wage decreases on only two grounds.

Neither the debates nor other literature preceding the enactment of the Economic Stabilization act and the issuance of Executive Orders under this statute reveal that these controls were an outcome of any formal theoretical rationale beyond that of stabilizing wage rates as a means of controlling inflation. Nevertheless, it is possible, from an examination of the grounds on which the National War Labor Board can approve wage adjustments and the Board's operations within these grounds, to determine the theory of which wage stabilization was intended to be a practical expression. The broad outlines of the government imposed wage control program and its operation must therefore be noted.

The National War Labor Board may approve a wage increase for the purpose of correcting a "maladjustment" between the cost of living and workers' straight-time earnings. The so-called "Little Steel Formula," which allows general increases to the extent of 15 per cent of the January, 1941, average straight-time hourly earnings, was adopted as the method for calculating the allowable adjustment. The rationale in justification of the "Little Steel Formula" appears to have been as follows. Such an adjustment would have only slight unstabilizing effects on the economy because wage rate increases of at least 15 per cent had already been made throughout most of American industry prior to the inception of the wage control program in October, 1942; and therefore such an adjustment would reëstablish equitable wage relationships for those industries or establishments which had lagged behind the upward movement of wage rates. A second rationale of the "Little Steel Formula" may be stated thus: It was felt that, in the interest of social equity, wage stabilization should begin only after wage rates had risen to the heights already attained by prices. From January, 1941, when for all practical purposes the inflationary effects of war production were first felt by the American economy, to March, 1942, the general level of prices rose about 15 per cent.[3] In March, 1942, price control was generalized over the entire economy[4] and the rise in retail prices, at least theoretically, was halted as of that time. When wage controls were first adopted, it was no doubt felt that, because the price of commodities had already risen by 15 per cent, the price of labor should also be permitted a similar rise. Presumably such a policy would achieve a rough measure of social equity.

The second basis for approving a wage increase under the economic

[3] The Bureau of Labor Statistics Cost-of-Living Index, which is in fact an index of the average retail prices of living essentials, stood at 100.8 in January, 1941, and 115.1 in April, 1942 (1935-39 = 100).

[4] See General Maximum Price Regulations, April 28, 1942, 6 FR 3153,330.

stabilization program is that of correcting "gross inequities." Two general kinds of inequities are recognized: (1) *inter-plant,* or inequities among wage rates paid for the same job classifications in different establishments, generally in the same labor market; and (2) *intra-plant,* or inequities among wage rates paid for different job classifications in the same establishment. It is on the first of these grounds that wage adjustments have been approved by the National War Labor Board in the majority of cases before it.

Until April, 1943, wage adjustments on the inter-plant inequity principle were made on a case-by-case basis. Thus, a demonstration that a specific firm was paying wage rates below the average rate of similar firms in that area was in many cases considered to constitute a gross inequity. The remedy was often an adjustment up to the average of rates paid by these firms. This case-by-case method soon proved to be both administratively and economically unsound. The administrative unsoundness of this approach arose primarily from the fact that it was extremely time-consuming; the economic unsoundness, from the fact that it was fundamentally unstabilizing to the wage structure. The policy of permitting adjustments for the lower wage firms up to the average rate resulted in a rise in the average rate—a rise which might then provide the basis for further adjustments for firms paying low wages in terms of the new average of rates. The case-by-case method, generally permitting particular firms to raise their rates to the average of rates, would in time have led to substantial elevations of the general level of wage rates.

The Byrnes Directive of May 12, 1943, provided much more objective criteria for determining whether wage increases could be allowed on the basis of gross inequities. It authorized the Board to establish "by occupational groups and labor market areas, the wage rates embracing all those various rates found to be sound and tested going rates." It further provided that "except in 'rare and unusual' cases in which the critical needs of war production require the setting of a wage at some point above the minimum of the going wage bracket, the minimum of the going rates within the brackets will be the point beyond which the adjustments mentioned above may not be made." The formulators of this concept must have felt that, among the going rates for any given occupational classification in any given labor market, there are discernible certain rates which are "sound and tested." They seem to have felt, further, that the demand and supply forces in the labor market would tend to establish a concentration of sound and tested rates paid for a certain job. The general method used for determining the minimum sound and tested rates, the so-called minimum of the bracket, was to array the rates paid for a given job classification by the various

establishments in a given industry in a given labor market, and then by inspection to determine the first lower substantial cluster of these rates. Where adequate rate information was not available, the minimum of the bracket was developed by more arbitrary statistical methods which were designed to yield approximately the same results. In general, the minimum sound and tested going rate for jobs in a particular industry in a particular labor market area was approximately 10 per cent below the weighted average rate for that industry in that market. Only those firms paying less than the minimum sound and tested going rates were permitted to increase those rates, and then only to the bracket minimum.

This clarification of procedure imposed by the May 12 Directive led to a distinct improvement over the previous method for determining gross inequities. It not only defined the boundaries, industrial and geographical, within which a gross inequity could exist, but also established a terminal point for wage adjustments on this basis. Furthermore, once a bracket of sound and tested going rates was established, it could only be changed if more adequate, not more recent, data became available. Thus, adjustments for individual firms to the bracket minimum, though raising the average rate, could not serve as a basis for raising the bracket minimum. The escalation inherent in the earlier application of the gross inequities doctrine was thereby removed. It was expected that this would result in a relatively constant level of wage rates.

The correction of intra-plant inequities, that is, inequities within the wage structure of a single establishment, involved only a small proportion of the cases before the National War Labor Board. Such inequities occur when different rates are paid for similar work or where the differences between the rates paid for different job classifications do not reflect the differences in job difficulty, training, qualifications, and experience necessary to perform these jobs adequately. Originally, there were no clear-cut limits to such adjustments. After April, 1943, however, no such adjustments could be approved if they resulted in an appreciable increase in production costs. The term "appreciable" has been interpreted very narrowly by the National War Labor Board.

Inter-plant and intra-plant inequities and the "Little Steel Formula" were the chief bases for allowing wage increases. *All but 8 per cent* of the cases involving wage rate adjustments have been decided on these grounds.[5] The third and fourth remaining bases for wage adjustments have been appreciably less significant, and can be considered below in summary fashion.

[5] This information, though not appearing in any publication, is available directly from the National War Labor Board.

The third basis on which a wage increase is allowable is that of correcting "substandards of living." Here it appears that the purpose of permitting upward wage adjustments was that of achieving a measure of social reform. National Board policy permits, but does not require, employers to raise wages to 50 cents an hour on the theory that any rate below that amount is substandard. In those cases where the upward adjustments to 50 cents an hour disturb the internal consistency of the wage structure of an establishment, certain further minimum adjustments are permitted in the rates of job classifications closely related to those for which substandard adjustments have been allowed.

Wage increases are granted, finally, when necessary to aid in the "prosecution of the war."[6] In practice, increases of this kind have been granted cautiously and sparingly. Wage adjustments necessary for the effective prosecution of the war are made only after the agencies of the government charged with the responsibility for procurement, war production and manpower have certified that the activity involved is of critical importance to the war effort and that the industry or establishment involved in this activity cannot meet war requirements because of a manpower shortage, and that this shortage can be overcome only by an upward wage adjustment.

It should be added that the National War Labor Board has authority to approve or direct wage rate reductions as a means of correcting gross inequities and of aiding in the effective prosecution of the war. However, very few cases involving wage decreases have been considered, and no general rules for handling such cases have been developed. This problem is one that is expected to become important in the transition period, and more attention will be given to it later in this paper.

[6] In addition to allowing wage rate adjustments on these four grounds, the stabilization program provided for control over certain issues other than those involving basic wage rates. Thus, adjustments regarding night-shift bonuses, vacations, overtime, etc., require approval of the National War Labor Board.

However, the wage rate control program continued in effect without change all of the previously established wage administration practices relating to wage increases for *individual* employees rather than jobs. Any plans in existence prior to stabilization regulations, providing formal methods for making merit and length-of-service increases, reclassifications, and various other kinds of adjustments to individual employees could be continued within the wage control program so long as no changes were made in their methods of operation. Since the National War Labor Board exercised only general and loose supervision over the operation of existing plans of this kind, it is probably true that the opportunities afforded thereby for granting wage increases to individual employees were quite fully utilized.

It should also be noted that wage control was not extended to very small business establishments. Firms with less than nine employees were not subject to the rules and regulations of the National War Labor Board, except in a few special instances where it could be demonstrated that their exemption resulted in unstabilizing the local labor market areas.

From the above description of wartime wage regulations, it is clear that the basic purpose of the wage stabilization program was that of controlling the level of wage rates. There was no attempt to control earnings, among other reasons, because of the wartime necessity for increasing the length of the work-week.[7] Furthermore, no change was made in the custom of paying overtime for work in excess of a fixed number of hours per week, or the paying of night-shift bonuses, or other premium pay. As a matter of fact, the Board permitted such payments in many establishments where such practices had not previously existed. Since the control was directed entirely to wages as a cost, it appears that the formulators of the policy believed that the most important inflationary force which the wage stabilization program must check is that of rising wage rates, the presumed forerunner of higher labor cost, higher total production cost, and ultimately higher prices. This interpretation of the rationale of the wage stabilization program is substantiated by the fact that under the April 8, 1943 "hold-the-line" order, certain wage adjustments were permitted only if they did not result in an increase in price or an appreciable increase in production cost. The reasoning underlying the control of wage rates presumably was that upward wage rate adjustments beyond those allowable by the stabilization program would necessitate upward price adjustments, at least in so far as labor costs were significant. Quite correctly, it appears to us, the assumption was made that an increase in workers' *earnings* need not be a factor increasing *labor costs*, except primarily in the case of premium rates for overtime; and that the immediate increase in labor cost due to premium rates would to a considerable extent be offset by the savings inherent in fuller plant utilization. While, of course, a substantial expansion in the volume of workers' earnings would *per se* tend to raise the price level, this tendency would presumably not entirely fulfill itself in view of direct price control by the Office of Price Administration, as well as heavy taxation restricting private expenditures for consumers' goods.

Furthermore, the wartime program of wage control contemplates stabilization, not freezing, of wage rates. Stabilization may, by implication, be defined as maintenance of the wage rate level, except in so far as that level must rise because of adjustments allowable under any of the four approvable bases discussed above. The net effect of the Na-

[7] No matter how vigorous the enforcement of the wage stabilization program, earnings of labor were bound to increase substantially, since these earnings are affected by factors over which the Board has no control. Some of these factors are worth noting briefly: increase in number of hours worked and in hours worked at premium rates; upgrading of workers to more skilled and therefore higher-paying jobs; shifts of workers to better-paying occupations, industries and localities; and the increase in piece-work earnings made possible by technological improvements or long runs of identical work.

tional War Labor Board's operations has been, of course, that of raising the wage level since, except for an insignificant number of cases, the Board has approved only upward wage adjustments.

Some indication of the extent to which the wage rate level has risen is available from the Bureau of Labor Statistics, from which the following data are excerpted:[8]

Wage Rates in Manufacturing, January, 1941—April, 1944

	No. of Months	Per Cent of Increase in Urban Wage Rates
Total Period:		
Jan., 1941—Apr., 1944	39	27.5[a]
Pre-stabilization Period:		
Jan., 1941—Oct., 1942	21	17.0[a]
Stabilization Period:		
Oct., 1942—Apr., 1944	18	9.0[a]
Oct., 1942—Apr., 1943	6	3.0[a]
Apr., 1943—Oct., 1943	6	3.8
Oct., 1943—Apr., 1944	6	1.9

[a] Partly estimated.

Percentage wage rate increases shown in the table reflect (1) specific adjustments approved by the National War Labor Board on the four allowable grounds discussed above, and (2) adjustments permissible, within prescribed limits, without formal Board approval—such as merit or length-of-service increases.

It is clear that the percentage increase in wage rates has declined significantly since the inception of the wage stabilization program. This is true since, as that program continued in operation, the range within which further upward adjustments were still allowable was constantly being narrowed. Thus, the smallest increase occurs in the most recent quarter for which data are available.

It appears also that the rise of wage rates from the inception of the wage stabilization program to April, 1944, is a modest one, compared to the potential of wage increases. That potential is apparently significant in view of the number of applications to the National War Labor Board for which the requested increases were either denied in full or granted only in part. As of December 1944, fully 55 per cent of all applications received by the Board were either denied or modified.[9] Furthermore, denials and modifications were so frequent that many

[8] "Wartime Wage Movements and Urban Wage Rates," *Mo. Lab. Rev.*, Oct., 1944, pp. 684-704.

[9] This information, though not appearing in any government publication, is available directly from the National War Labor Board.

business men who would otherwise have applied for upward wage adjustments were deterred from doing so; and other enterprisers found it unnecessary to apply, since their competitors had failed to secure increases.

The existing wage stabilization program, whatever its imperfections, has demonstrated that effective government control of wage rates can be maintained despite tremendous pressure for increases. Whether some such program is desirable for the transition period, however, is a question that must, it seems to us, be answered largely with reference to an assumption regarding the economic character of that period. The assumption made in this paper is that unemployment during transition will be substantial.[10] What, then, would be the effect of a wage control program on employment opportunities? That wage control will significantly affect the volume of employment is obvious since, as will be indicated below, the fact of control means (1) a wage level different from what otherwise would be the case and, therefore, (2) a national income different from what would otherwise be the case. Since it is the size of the national income which economists generally associate with a given volume of employment, the strategic importance of wage control—a factor affecting the volume of national income—becomes obvious.

II. *Relation of the Wage Stabilization Program to the Size of the National Income*

A fall in the wage level during the transition period would lead to a contraction in national income, unless the wage level decline itself induces an expansion in employment. While a reduction in wage levels, employment remaining constant, could in the first instance lead simply to a redistribution of income in favor of enterprisers or other groups, it appears inevitable that the total national income must shortly fall.

[10] This assumption is based on the following reasoning: The initial effect of cutbacks and re-tooling for civilian production must be that of causing unemployment, estimates of which have ranged from three to seven million persons. This estimate would not be too distressing in so far as there were assurance that reconversion would quickly and significantly reduce the army of the unemployed. But the list of the more obvious and inevitable delays before peacetime production can get under way is impressive: machines must be re-tooled, industries re-located, workers re-trained and re-migrated; and an accumulation of technological innovations, only theoretically sound, must be put to the test of experience. Transcending any of these impediments to reëmployment, perhaps all of them combined, is what appears to us to be the clear probability of a decline in public spending after the defeat of Germany.

Once the assumption of unemployment is made, it appears, as will be indicated in Section II, that the course of wage rates will be downward. For a restricted number of occupations, industries and areas, however, rates may rise—a possibility that must be contemplated by any effective stabilization program.

The sudden enrichment of nonlabor groups at the expense of labor is bound to decrease the volume of expenditures on consumers' goods and, therefore, employment in consumers' goods industries; and there is little likelihood that this diminution in employment will be offset entirely by an expansion of investment and therefore employment in the capital goods industries. For even if the standard neo-classical theories of interest are sound (and it is interest theory that most neo-classical economists are apt to regard as the weakest link in their analysis), it is certainly unrealistic to believe that an increased volume of saving would surely and quickly lead to a fall in the rate of interest, a consequent expansion of investment opportunities, and an adequate increase in the production of capital goods.

On the assumption made earlier in this paper that substantial unemployment will prevail during transition, we may reasonably anticipate a declining wage level for that period, should the wage stabilization program be discontinued. Though somewhat offset by union pressure against wage cuts, unemployment has generally operated as a potent wage-reducing factor. This fall in the wage level, as already indicated, would lead to a contraction in national income unless the wage reduction itself induced an expansion in employment.

It is important to note that discontinuance of the wage stabilization program would cause a fall in the wage level *greater than otherwise would be the case*. That is, the wage level would presumably decline even though wage control continued throughout the transition period. The reasons for this decline may be noted briefly:

1. A substantial number of workers will shift from jobs in higher-paid war industries to lower-paid jobs in civilian industries during the transition period.
2. A substantial number of workers will shift from jobs in higher-paid urban centers to jobs in lower-paid suburban or rural areas. It may be expected that with the decline of war industries, mostly situated in large cities, a large number of workers will re-migrate to less remunerative civilian jobs.
3. Job down-grading may become an extensive practice.
4. Even under the regulations of the present wage stabilization program, it is possible to make a significant number of merit and length-of-service increases without the necessity of securing National War Labor Board approval. These regulations provide that companies' existing merit and length-of-service plans can be continued without modification. Often these plans are flexible as to the conditions under which increases are allowable, so that in practice a great deal of leeway has been possible. It may be expected that with the loosening of the labor market during the transition period, merit and

length-of-service bases for increasing wage rates will be redefined tightly, so that workers hired at any given rate will be denied upward adjustments on these grounds altogether, or at least, receive them at a slower rate. This reversal or modification of wartime practice would amount to a reduction in wage rates, *i.e.*, workers would be hired at or tend to remain at minima rates, whereas war workers have climbed considerably above those minima.

These are the reasons suggesting that the wage level will actually fall in the transition period though, of course, rates for particularly scarce skills, *e.g.*, patternmakers, may actually rise. A wage stabilization program cannot—indeed, should not—altogether arrest this downward trend. For, in so far as a declining wage level is due to the factors listed above, it may very well register fundamentally sound economic adjustments in the allocation of manpower. Legitimate downgrading, for example, results in a lower wage rate for particular workers due to their reclassification to jobs requiring a lower level of skill; and in so far as available jobs require less skill than those previously held by workers, a reduction in individual rates is economically sound.

The foregoing observations can be summarized as follows: (1) discontinuance of the wage stabilization program in the transition period would permit the wage level to fall *more than would otherwise be the case;* (2) this *extra* decline would cause a fall in the national income greater than would otherwise be the case—unless the lowered wage level itself induced an expansion of employment. Proceeding from point (2), our immediate problem is to determine, in the light of probable transition conditions, whether a fall in the wage level would in fact lead to an expansion of employment.

III. *Enterprisers' Behavior in the Transition Period*

The reduction in wage levels, whatever may be its theoretical implications from the standpoint of price-cost relationships, is a disconcerting and inhibiting phenomenon to enterprisers. For the calculations of business men can hardly be expected to exclude the reflection that an initial general wage decrease may well be the harbinger of a series of both wage level and price level decreases. This prospect, something quite different from the expectation of wage adjustments in occasional industries and occupations, is certainly not one likely to stimulate an expansion in the purchase of labor.

While business men generally are apt to feel the inhibiting effects of a wage level reduction, the repercussions of such a decline will weigh unevenly on different types of activities. In this regard it is significant to distinguish between enterprisers who have continued to produce civilian goods and services for a civilian market throughout the war,

e.g., women's and children's clothing, retailing, the amusement industry, and those enterprisers who have converted to the manufacture of war products.

It is the civilian producers who will be least disturbed initially by the dynamics of the transition period. Indeed, these are the producers who see in the transition period some direct benefits, such as the lifting of priority restrictions, greater accessibility to raw materials, and greater availability of labor. The long-awaited green light, signalized by the advent of these benefits may, however, abruptly change to red because of any one of several obstructions possible in an economy of transition. Would a reduction in wage rates, attendant on a termination of the stabilization program, appear to civilian producers as one of these obstructions? These producers are aware of and concerned about the strenuous competition that will manifest itself after the defeat of Germany enables war producers to reconvert. The certainty of this new competition in a period of uncertain markets would tend to inhibit expansion; but even more inhibiting to these civilian producers is the possibility that the reconverted enterprisers may be able to undersell them on the basis of lower labor costs. Since the labor market will loosen up in the transition period, the reconverted industries might easily pick up workers at bargain rates, that is, at rates lower than those now paid by regularly established civilian producers. Furthermore, war producers, reconverting to civilian industries, could thereby release themselves from the wage provisions of long-term labor contracts, many of which have re-opening clauses for just such a contingency as a fundamental alteration in the character of a business. The possibility of wage cutting by reconverted war producers probably would deter civilian enterprisers from expanding production; or, to put the matter even more cautiously, would not actually induce these civilian enterprisers to expand employment.

Civilian producers, faced by the prospect or actuality of wage rate reductions by their newly reconverted competitors, might of course be able to reduce their own wage rates. But these civilian enterprisers, the structure of whose enterprises continued fundamentally unaltered in the transition period, are bound by long-term labor contracts which they cannot abrogate easily. Civilian producers, therefore, probably could not reduce wage rates for their employees as quickly as, or to the level obtainable by, war producers; and even apart from the existence of labor contracts could not do so without costly labor disturbances. For these reasons, civilian business men are not likely to interpret the reduction in wage levels, initiated by a discontinuance of the stabilization program, as a situation inviting or compelling an expansion of their employment. It follows, in accordance with our reasoning

above, that a reduction in the wage level would cause a contraction in the national income.

We need now consider the impact on employment of the behavior of war producers, anticipating reconversion. These business men are essentially in the position of new investors seeking profitable enterprises; except that they are faced with greater than usual uncertainty regarding the business future, and except that the number of these new investors exceeds that in any "normal" business situation where, at any given time, the new entrants into an activity constitute a small percentage of those already established. War producers must determine the product or services to which to reconvert in terms, among other considerations, of the probable range and intensity of competition likely to be encountered. Each of them, furthermore, is aware that whatever may be the civilian activity into which he may enter, other war producers will make the same choice; so that, in any field of activity, the potential expansion is great, though indeterminate, and the survival power of any single reconverted producer is at best a matter for speculation.

Unlike already established civilian business men, war producers must then choose a field and, having chosen one, must—again unlike civilian producers—determine from scratch the probable magnitude of their operations. In the interest of full employment, these decisions should be made quickly. For the initiative in the battle against depression and unemployment may be lost if business men feel that it would be better to "wait and see"; to defer action for a while until the trend of the transition period becomes apparent, particularly the trend of wage rates. Whether war producers reconvert quickly or slowly, the tempo is bound to be slowed down to the extent that uncertainty as to the course of wages is added to the other uncertainties plaguing business enterprise. It is beside the point that some of the more adventurous war producers will rush into the civilian market, regardless of circumstances, hoping thereby to obtain the competitive advantage of an early start. For it would be exceedingly optimistic to assume that the great bulk of producers will reconvert at a tempo unaffected by the indeterminateness of the course of wage rates.

A reconsideration of certain effects of the existing wage stabilization program suggests clearly that war producers would naturally interpret the continuance of that program as a reassuring circumstance. The point was made earlier that most businesses which have converted to the production of war materials have increased their wage rates *considerably over* their own pre-war level, and over the level of their former competitors who have remained in the civilian field. But

the disparity in rates among competing producers in any given industry, for any given occupation in a given labor market, has narrowed, not widened, since the stabilization program was inaugurated. This is the logical result of a program which, from its inception, has held high wage enterprises to their established rates but permitted low wage companies to raise their rates to the level of the sound and tested rates —the so-called minima of the brackets, explained above.

In the light of this outcome of the wage stabilization program, consider now the type of problem facing, say, a manufacturer of cartridge shells, formerly a manufacturer of roller skates. As a war producer, he experienced the usual pattern of wage rate increases. When his contract for cartridges is cancelled, he must decide on a course of action. Whether to return to the manufacture of roller skates (or some other civilian product) and what should be the magnitude of his reconverted operations depend, among other things, on the cartridge manufacturer's estimate of his probable labor cost, especially in relation to that of his competitors. He need not be too distressed about civilian competitors who have never converted for, as was indicated above, the war producer could reduce his high war-time rates to approximately the civilian level, perhaps even below that level. Nevertheless, war producers cannot know the level of rates that will be paid by these civilian producers—a circumstance which, as indicated above, must retard the tempo of reconversion. Furthermore, the cartridge manufacturer does not know the wage rates that will be paid by the present war producers when and if they enter the field of roller-skate manufacture. In the absence of a wage stabilization program, he might conclude that these former war producers could undercut him in the competitive struggle to lower labor costs, and that the whole wage rate structure might precipitously collapse. This is a situation placing a premium on caution on the part of any of these producers.

On the other hand, if the wage stabilization program is continued, it is reasonable to believe that war producers might reason as follows. Wage rates are a known quantity. Civilian rates are lower than war rates; but since virtually all civilian producers are paying rates equal to at least the minima of the brackets, the differences between the former and the latter are not so great as to preclude competition. In any case, continuance of the wage stabilization program throughout the transition period would also provide assurance to war producers that competition among themselves after reconversion will be less erratic than otherwise, because the course of wages will be a determinate factor.

Such are, it seems to us, the "practical" calculations of business men.

In so far as they exist, they are strategic in affecting the course of employment. It is beside the point to argue that these calculations have no theoretical validity; the significant question is whether these calculations are in fact prevalent. If we could assume that business men calculate differently, *i.e.*, that they believe that a drop in the wage level promises a period of business activity, then, of course, the effect of this decline might be initially an expansion of employment. But this does not appear to us to be a realistic assumption of the workings of business psychology. It is not here suggested that even absolute business certainty as to the course of wage rates will of itself lead to speedy reconversion; nor even that a stable wage level will necessarily lead to an expansion of employment. The point stressed is that, in terms of business men's calculations, discontinuance of the wage stabilization program would add to the uncertainty of the business future.

Discontinuance of the wage stabilization program, we have already indicated, would lead to a decline in the wage level. That decline, interpreted in the light of business men's calculations, is not likely to induce an expansion of employment.[11] The cut in the wage level, unaccompanied by an expansion in employment, will lead to a fall in the national income—a circumstance associated with a contraction of employment opportunities. If this conclusion is correct, the case for government maintenance of the wage level appears strong.

IV. *A Wage Stabilization Program for the Transition Period*

Since available wage data indicate that the present wage program has succeeded in effectively stabilizing wage rates (see Section I), the

[11] The conclusion that a reduction in the wage level would not necessarily induce an expansion of employment is derived here simply by estimating the probable behavior of enterprisers faced with declining wage rates. It is worth checking this conclusion against the findings of theoretical economics. Neo-classical theory holds that a reduction in the wage level constitutes a factor operating toward an expansion of employment. Since, however, this conclusion is arrived at without reference to the price and income alterations necessarily induced by a general wage level reduction, it seems to us to be devoid of practical relevance to the problem of maximizing employment. The Keynesian type of analysis, however, deals with the effects of general wage reductions on prices and incomes; and therefore provides a theoretical framework of practical significance. Keynes's general position regarding the relation of wages to employment is summarized as follows: "... the reduction in money-wages will have no lasting tendency to increase employment except by virtue of its repercussions either on the propensity to consume for the community as a whole, or on the schedule of marginal efficiencies of capital, or on the rate of interest. There is no method of analyzing the effects of a reduction in money-wages, except by following up its possible effects on these three factors." (*The General Theory of Employment, Interest, and Money*, p. 262.)

However, both neo-classical and Keynesian theory appear to be in fundamental accord regarding the effect of a wage decrease in a specific industry or occupation; such a decrease may well lead to a lasting expansion of employment in that specific industry or occupation. Restricted or isolated action of this kind would presumably not set into motion a whole current of fundamental alterations in the economy.

basic principles and regulations of that program may well be continued in the transition period, except where conditions peculiar to that period dictate modifications. With this observation as a point of reference, the following program for the transition period is proposed.

1. The "Little Steel Formula" allows for upward general wage increases to compensate for the rise in the cost of living. This adjustment—15 per cent of the average straight-time hourly earnings received in January, 1941—less than compensates for the percentage rise in the cost of living since that date.[12] It follows that the cost of living could decline considerably before necessitating a downward adjustment in rates on the cost-of-living principle. But in any case, the wage stabilization program of the transition period should not permit a reduction in the general level of wage rates. This conclusion is based on the reasoning presented earlier in this paper, *i.e.*, that a reduction in the wage level would tend to diminish the national income and intensify unemployment. On the other hand, the wartime limitations on general wage increases should not be relaxed so long as a general inflationary threat continues. On the assumption made herein, however—that unemployment in the transition period will be substantial—the probability of a *general* rise in prices is slight.[13]

2. Wage rates are now increasable for the purpose of correcting inter-plant inequities, *i.e.*, inequities among wage rates paid for the same classification in different establishments. These corrections have been generally limited to establishments in the same local labor market. Stabilization was achieved when the gross inequity was removed so that there was no substantial advantage accruing to workers of one establishment, not enjoyed by neighboring workers in the same local labor market. Limitation to such a narrow universe for the correction of inequities was entirely appropriate so long as there was a virtually assured market for goods at profitable prices. With the transition to peacetime production, and on the assumption of considerable unemployment during that period, the universe within which gross inequities could exist will be significantly broadened. This occurs because each competing producer will no longer have a virtually guaranteed market

[12] The President's Committee on the Cost of Living in its report, November 10, 1944, showed a 30 per cent increase in the cost of living from January, 1941, through September, 1944. The Thomas Meany report of January, 1944, asserted that by December, 1943, the cost of living had risen 43.5 per cent above the level of January, 1941. The Bureau of Labor Statistics cost-of-living index which stood at 100.8 in January, 1941, stood at 126.4 in October, 1944.

[13] In recommending that the wartime limitation in general wage increases be extended throughout the transition period, we are not passing on the question of whether the present wartime limitation, *i.e.*, the "Little Steel Formula," should now be modified.

for his goods and will therefore be competitively affected by the wage rates paid by all other producers selling for the same market. Thus the inter-plant inequity arising from different wage rates and labor costs could extend in the transition period far beyond the local labor market for those establishments whose products are sold on a regional, national, or even international market. For such industries it will probably become entirely appropriate to measure gross inequities on a much broader geographical basis, in some cases an industry-wide universe. In any case, the principle of permitting wage adjustments to correct gross inter-plant inequities, developed in the wartime stabilization program and demonstrated as an effective means of preventing inflationary wage increases, should also be extended into the transition period.

In so far, however, as unemployment in the transition period is substantial and the pressure for *general* wage increases is slight, the gross inequity principle would operate primarily to prevent undue wage increases for a restricted number of workers in occupations where manpower shortages exist. But just as this principle would continue the ceilings over upward wage adjustments as long as they are necessary, so it would establish a floor limiting downward wage adjustments in occupations abundantly supplied with workers. Thus in those few cases where it can be clearly demonstrated that a reduction in wage rates is the only effective and feasible method for bringing about a net expansion of employment, that reduction may be authorized. Such a reduction, however, should be consistent with the concept of gross inequities, and contained within the rates established under that concept. It may be possible to limit wage rate reductions to a restricted number of cases, possibly as restricted a number as that for which upward "rare and unusual" adjustments for the effective prosecution of the war are now granted.[14]

3. An important administrative problem of the wage stabilization program of the transition period will be that of applying its principles to new and reconverted plants, which at the very beginning of their operations must establish wage schedules. It is obviously to the advantage of companies to establish these schedules below the level being paid by competing establishments. To prevent this deflationary possibility, it would, of course, be necessary to approve these new job struc-

[14] The limitation of wage increases and decreases to adjustments permissible within the gross inequity doctrine is consistent with this concept of wage stabilization, *i.e.*, the maintenance of a given wage level within a narrow range and adjustments within that level on certain circumscribed grounds. Whatever the level of wage rates may be, whether that level is controlled governmentally or competitively, occasional fluctuations within it would be economically necessary.

tures tentatively before making them permanently effective. It is the necessity for quick rulings that creates a real administrative problem; delays would prevent the new or converted plant from beginning its operations. A job-by-job comparison between the jobs in the new structure and the so-called sound and tested rates for similar jobs in the industry and labor market is time-consuming. It is suggested, therefore, that new job structures be inspected simply from the standpoint of determining whether the *average* of wage rates provided therein is no lower than the average of wage rates elsewhere in the appropriate universe for determination of inter-plant inequities. If even this procedure should be found to be too time-consuming to permit rapid reconversion in the transition period, some consideration might be given to the possibility of permitting new or reconverted plants to begin their operation without approval of their job structures, requiring them, however, to apply for such approval immediately. Subsequently, approval or modification of the instantly established rates would be ruled on by the National War Labor Board. Since most employers would, in the first instance, probably apply for as low a wage schedule as possible, it is likely that the Board's final action would generally require upward adjustments and would not, therefore, be a source of labor disturbances.

4. As a means of reducing the administrative burden of the transition program, certain intra-plant inequity adjustments should be permitted without Board approval. Such adjustments are now permissible (subject to Board approval) only if they can be made without appreciable increase in production costs; and under this limitation, these adjustments cannot result in any substantial increase in the average of all rates within an establishment. To this restriction might be added one other: namely, that intra-plant adjustments may affect at most, say, 25 per cent of the workers in an establishment. Subject to these two controls, intra-plant adjustments, though made without Board approval, would not be unstabilizing.

5. The wartime wage stabilization program permitted wage increases for the purpose of correcting substandards of living. The purpose of permitting such adjustments was that of achieving a measure of social reform. Since the transition period should certainly not be one in which social reform is neglected, it appears entirely appropriate that increases for the correction of such substandards of living should continue to be permitted and that no wage reductions below the minimum standard rate should be allowed.

6. Finally, wage increases were granted when necessary to aid in

the "prosecution of the war." As long as the war continues, this basis for upward wage adjustments would of course be appropriate.

The foregoing recommendations constitute only the outline of a wage stabilization program, not a detailed and charted course of action. Indeed, it is this broad outline that must first be appraised before consideration can be given to the appropriateness of specific regulations within it. The present wage stabilization program, it is interesting to note, evolved from a relatively simple set of underlying principles into an elaborate body of doctrine and practice. So, too, must the transition program.

EXPERIENCE RATING IN UNEMPLOYMENT COMPENSATION

By CHARLES A. MYERS*

I

The importance of adequate provision for unemployed workers during the reconversion period has properly focused attention on some of the shortcomings of our present system of unemployment compensation.[1] But social security programs also need reëxamination in the light of their probable impact on the level of employment after the transition from war to peace. This long-run problem should not be disregarded simply because immediate demands are more pressing.

Unemployment compensation, and social security programs generally, are designed primarily to provide some protection for covered workers against certain unavoidable hazards. The possibility of using social security taxes and funds as a major weapon in governmental efforts to assure high-level employment has received only secondary attention in this country. Although it has been claimed that payment of unemployment benefits in depression periods would have a bolstering effect on consumer demand, and although experience-rating provisions in some 40 state laws have been designed to encourage individual firms to stabilize their employment, neither of these is tied in directly with a positive government fiscal policy as an instrument of economic stabilization.

II

A concrete and significant proposal in this direction is made in the recent British White Paper on ***Employment Policy***.[2] This White Paper is notable in many respects, but principally because it commits the present British government to a far-reaching program for meeting

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[1] Richard A. Lester, ***Providing for Unemployed Workers during the Postwar Transition Period***, chap. iv, "Improvements in Unemployment Compensation" (New York, McGraw-Hill, 1945). Gladys R. Friedman and William H. Wandel, "Unemployment Compensation Goals in the Reconversion Period," ***Social Security Bulletin***, Vol. 7 (Sept., 1944), pp. 6-10; and "Unemployment Compensation in the Reconversion Period: Recommendations by the Social Security Board," ***Social Security Bulletin***, Vol. 7 (Oct., 1944), pp. 3-8.

[2] Cmd. 6527 (reissued in the United States by Macmillan Company, New York, 1944).

"those long-term problems connected with the maintenance of an adequate and steady volume of employment which eluded solution before the war."[3]

The Keynesian influence on British thinking in this instance is clear. One of the "essential conditions" of the program is that "total expenditure on goods and services must be prevented from falling to a level where general unemployment appears." In addition to "public investment" to maintain "capital expenditure," the White Paper recommends, "we must create another line of defence against this progressive degeneration of the state of trade by putting ourselves in a position to influence the community's expenditure on consumption."

The core of the proposal is stated as follows:[4]

> For this purpose, the Government, after examining a number of methods, favour the adoption, when settled conditions return, of a scheme for varying, in sympathy with the state of employment, the weekly contribution to be paid by employers and employed under the proposed new system of social insurance. The standard rate of contribution would be assessed on the basis of a forecast of the average level of unemployment, in such a way as to keep the social insurance fund in balance over a number of years. But the rate of contribution actually levied would exceed the standard rate at times when unemployment fell below the estimated average level and would be less than the standard rate at times when unemployment exceeded this average. . . .
>
> The effect of this scheme would be that, above a certain level of unemployment, a rise of two points in the unemployment percentage would decrease by an average of £500,000 a week the total of the social insurance contribution paid by workers in employment—apart from the corresponding reduction in the costs of employers. This would substantially augment the purchasing power in the hands of employed workers; and the additional money thus left in the hands of many millions of people would help to maintain demand for consumers' goods, thereby offsetting, at least in part, the decline in the expenditure of those who had lost their employment. This maintenance of purchasing power would reduce substantially the variations in total expenditure and employment.

Here, it must be admitted, is something new in social security policy, given influential support by the government of a nation which has pioneered in social security.[5] The sharp contrast with our own social

[3] *Ibid.*, p. 15.

[4] *Ibid.*, pp. 22-23. Fuller details of the plan are included in an appendix to the report.

[5] In his *Fiscal Policy and Business Cycles* (New York, Norton, 1941), Professor Alvin H. Hansen made a somewhat similar proposal, but it was not related directly to social insurance or unemployment compensation. He suggested that a payroll tax might be increased during the late upswing and boom, and dropped entirely after the turning point had been reached. Funds previously collected could then, he said, be "returned to aid employers to maintain current wage rates." And, "in so far as payroll taxes had been deducted from wages, they should be returned to the wage earners (employed as well as

security program is striking. During a period when employment and payrolls were expanding, Congress voted in 1943 and again in 1944 to postpone the scheduled increases in employer and employee contributions (payroll and earnings taxes) for federal old-age insurance. The scheduled increase to 2 per cent on January 1, 1945, would have doubled the annual revenue of $1,300,000,000 at 1 per cent. Contribution rates may later have to be raised at a time less favorable from the standpoint of consumer demand and employer costs. But it is with experience rating under state unemployment compensation laws that the contrast is sharpest. The remainder of this paper will be devoted to a reëxamination of our present experience-rating systems in the light of the British proposal and other considerations.

III

The primary and announced purpose of experience rating in unemployment compensation is to provide a financial incentive, in the form of a reduced contribution rate, for the individual employer to make a real effort to stabilize his employment. Britain experimented on a limited basis with this idea before 1920, but abandoned it.[6] Hence it is usually regarded as a peculiarly American invention. Three years before the Social Security act was passed in 1935 in this country, Wisconsin adopted an unemployment compensation law with definite provisions for "merit rating" (as it was then called).

The pressure for some form of merit or experience rating grew as other states adopted unemployment compensation laws after 1935. By the end of 1943, experience rating was effective in 40 states, and during 1944-45 it will go into operation in 5 more states.[7] In most of these states, the revenues used for payment of unemployment benefits come from a payroll tax ("contribution") levied on employers exclusively. Only three states require contributions from employees (1 per cent) based on their earnings. Reductions below the standard rate of 2.7 per

unemployed) to help maintain labor incomes in the depression" (pp. 293-94).

A brief suggestion along similar lines, in connection with experience rating under unemployment compensation, was made in the Unanimous Report of the Committee on Employer Experience Rating of the Interstate Conference of Employment Security Agencies (Washington, September, 1940), pp. 71-72.

[6] Mary B. Gilson, *Unemployment Insurance in Great Britain* (New York, 1931), p. 43. See also chap. vi.

[7] Many of the following data on experience rating were taken from "Experience Rating Operations in 1943," *Social Security Bulletin*, Vol. 7 (Sept., 1944), pp. 11-19. The only states or territories without provision for experience rating are Alaska, Mississippi, Montana, Rhode Island, Utah, and Washington. After this manuscript was prepared, New York adopted a type of "experience rating" different from existing provisions. It does not provide for direct variations in contribution rates, but allows rebates in the form of tax credits under certain conditions. It is too early to evaluate the probable effects of this plan.

cent may go as low as zero in some states, but in only 16 of the 40 states are higher-than-standard rates assessed against "unstable" firms.

Between January 1, 1941, and December 31, 1943, employment and payrolls increased substantially. Yet during these three years, as experience-rating provisions became effective in 40 states, the average employer contribution rate in these states dropped to 1.8 per cent, compared to the standard rate of 2.7 per cent. (See Table I.) The revenue collected, compared to what it would have been at the standard rate,

TABLE I.—REDUCTIONS IN CONTRIBUTION RATES AND REVENUES UNDER EXPERIENCE RATING

Year	Average Employer Contribution Rate (All States)	States with Experience Rating				Reduction in Revenue as % of Contributions at Standard Rate (All States)
		Number	Average Employer Contribution Rate	Reduction in Revenue from Standard Rate[a] (millions)	Reduction as % of Contributions at Standard Rate	
1941	2.58%	17	2.17%	$54	20%	5%
1942	2.18	34	1.81	269	34	20
1943	2.00[b]	40	1.80	416	36	26

Source: Condensed from Table 1, "Experience-Rating Operations in 1943," *Social Security Bulletin*, Vol. 7 (Sept., 1944), p. 11.

[a] Excluding special war risk contributions provided in 9 states, amounting on 1943 payrolls to 30 million dollars.

[b] An unofficial tabulation reported an average employer contribution rate for all states in 1944 of 1.8 per cent. (*Business Week*, Apr. 28, 1945, p. 34.)

also declined each year, until in 1943 it was more than a third lower than the probable revenue at the standard rate.[8] For all states, this represented a reduction in revenues of one-fourth from the potential revenue of 1.6 billion dollars.

The opposite result may be expected in a future period of falling employment and declining payrolls. Under present experience-rating provisions, the average employer contribution rate will have to be increased, and the revenue collected per payroll dollar will also increase.

[8] This possibility was foreseen in *Experience Rating under Unemployment Compensation Laws*, in the Unanimous Report of the Committee on Employer Experience Rating of the Interstate Conference of Employment Security Agencies (Washington, Sept., 1940): ". . . Even those States which already have accumulated rather substantial reserves might do well to 'make haste slowly' in using their present reserves as a basis for reducing contribution rates to a point where current collections would merely match current out-go" (p. 56).

To the extent that this loss of revenue through lower contribution rates is reflected in higher profits or lower prices, however, some of it will be recovered by the Treasury (though not for the Unemployment Compensation Fund), through excess profits taxes and lower costs of war goods.

Except for the fact that the variations apply to employer contributions alone in this country, these results are just the opposite of those recommended by the British White Paper in the interest of maintaining high-level employment. Total revenues collected will be greater in boom than in depression, because total payrolls are higher, but the *rate* of contribution will vary in the opposite direction.

IV

Why does experience rating bring these results? The answer is to be found in an examination of the mechanics of contribution rate reductions in our various state laws. The earliest form of experience rating, adopted in the Wisconsin law in 1932, was the "reserve-ratio" method. Under this plan an employer qualified for a lower-than-standard contribution rate if the ratio between his credited "reserve" (total contributions less benefits charged against his account) and his average annual payroll in preceding years was at specified percentage levels. Thus, if an employer succeeded in reducing benefit payments, either by employment stabilization or other devices, his reserve ratio might rise, provided his annual payroll remained about the same or at least increased less rapidly. He would, therefore, be qualified for a lower contribution rate the following year. In Wisconsin he might even qualify for a zero rate.[9]

The Wisconsin law was the pattern for many other states adopting experience rating. By the end of 1943, 24 of the other 39 states in this group had a reserve-ratio type of law, although most of these differed from the Wisconsin law in that employer contributions were largely pooled, rather than kept in separate "employer reserves." Seven states with experience rating had adopted a method known as the "Cliffe plan" (developed originally by an official of the General Electric Company); and 5 others followed a "benefit-ratio" plan. Two states used a combined reserve-ratio—benefit-ratio plan, and one state (Connecticut) used a "compensable separations" method, under which an employer's experience is measured by an index involving the number of separations resulting in benefits multiplied by the benefit rates.[10]

The "Cliffe plan" differs from the reserve-ratio method in several important respects. The intention of the former is to replenish the fund for the average annual amount of benefits paid during the preceding three years, and in effect to put operations on a "pay-as-you-go"

[9] For a fuller discussion of the Wisconsin act, see a study by the author, *Employment Stabilization and the Wisconsin Act* ([Employment Security Memorandum No. 10] Social Security Board, Washington, Sept., 1940). A condensed version appeared in the *Am. Econ. Rev.*, Vol. XXIX, No. 4 (Dec., 1939), pp. 708-23.

[10] "Experience-Rating Operations in 1943," *op. cit.*, Table 2, pp. 12-13.

basis rather than to accumulate a growing reserve. The employer's contribution rate is determined by his "experience factor" adjusted by the state "experience factor." His experience factor may be defined as follows: the base-period wages ("benefit wages") earned from him by employees who are laid off and subsequently draw benefits, in a three-year period, divided by his total annual payrolls for three years. The state experience factor is simply the total benefits paid, divided by the total of all "benefit wages" in the state over three years. Benefit wages are charged to previous employers after the first week of benefits, and are the same whether the employee draws one or 15 weeks of benefits.[11]

The "benefit-ratio" method of experience rating awards lower employer contribution rates on the basis of a low ratio between the total benefits paid to present or former employees over a three-year period and the employer's total payroll for the same period. The reserve-ratio plan, in contrast, measures the ratio between the net reserve (total contributions minus total benefits) and the average annual payroll in preceding years.

In both the Cliffe and benefit-ratio types of plans, falling benefit payments and rising payrolls, resulting from a continued general increase in employment rather than from individual employment stabilization efforts, can lead automatically to lower employer contribution rates. Under the reserve-ratio plans, on the other hand, an increasing reserve caused by a decline in benefits due to increased employment is likely to be offset somewhat by a higher payroll, and the ratio between the two remains the same if the two have risen in the same proportion. The fact that the reserve-ratio plans take account of the employer's benefit and contribution experience since the beginning, rather than only during the preceding three years as in the two other plans, also accounts for greater stability of rates in the face of a continued increase in employment.

This contrast is shown clearly in the proportion of employers receiving rate reductions under each type of experience rating. During 1943, 84.5 per cent of the eligible employers qualified for lower-than-standard contribution rates in the seven states with the Cliffe plan, and 80.6 per cent got lower rates in the five states with benefit-ratio plans. On the other hand, only 69 per cent of the eligible employers received lower rates in the twenty-five states with reserve-ratio plans.[12]

[11] This was one of the major defects pointed out by the Unanimous Report (*Experience Rating under Unemployment Compensation Laws*), *ibid.*, p. 37. For further analysis and criticism of the Cliffe plan, see Adolph Appleman, "Notes on the Cliffe Plan of Experience Rating," *Personnel,* Vol. 17 (Aug., 1940), pp. 67-74. Mr. Cliffe describes and defends the plan in "The Texas Plan of Experience Rating," *Personnel,* Vol. 17 (Nov., 1940), pp. 151-61.

[12] "Experience-Rating Operations in 1943," *op. cit.*, Table 4, p. 15.

With several exceptions,[13] however, the reserve-ratio plans do not appear to have been free from the influence of rising employment and payrolls. The over-all picture of states with experience rating shows that from 1941 to 1943 an increasing proportion of employers have qualified for reduced contribution rates. (Table II.) Surely few people would seriously contend that in 1943 three-fourths of all eligible employers in all types of industry in 40 states had succeeded in "stabilizing" employment by their own efforts! Of course, in the 16 states which provide for higher-than-standard rates, some employers in industries

TABLE II.—PERCENTAGE DISTRIBUTION OF ACTIVE ACCOUNTS ELIGIBLE FOR RATE MODIFICATION, BY EMPLOYER CONTRIBUTION RATE, IN STATES WITH EXPERIENCE RATING IN EFFECT

Year	Number of States	All Rates %	Below Standard	Standard[a]	Above Standard
1941	17	100.0	54.9	31.8	13.3 (5 states)
1942	34	100.0	67.4	24.1	8.5 (15 states)
1943	40	100.0	74.8	19.9	5.3 (15 states)

Source: Compiled from Tables 3 and 4, "Experience-Rating Operations in 1943," *op. cit.*, pp. 14–15, Table I, *Social Security Bulletin*, Vol. 5 (June, 1942), p. 12; *Social Security Bulletin* Vol. 6 (Feb., 1943), p. 9.

[a] Standard rate is 2.7 per cent in all states except Michigan, where it is 3 per cent.

such as bituminous coal mining and building construction had to pay rates above 2.7 per cent, but in Hawaii 98 per cent of building construction employers qualified for below-standard rates.[14] Did they all "stabilize" employment by their own individual efforts, or was the construction boom after Pearl Harbor responsible?

V

A few states have apparently recognized the potential danger in widespread reductions of employer contribution rates during periods of rising payrolls. In contrast to most states, average contribution rates in Nebraska and Wisconsin were higher during 1943 than during 1941. The reserve-ratio plans in effect in these states differed from the usual reserve-ratio laws. Thus, in Nebraska the greatest amount of benefits in any year, 1940-42, is subtracted from the employer's reserve balance at the beginning of 1943, and the remainder is then expressed as a ratio of either his average annual payroll for the three years or the 1942 payroll, whichever is higher. A somewhat similar method is used in

[13] Principally Wisconsin and Nebraska, where there has been an increase in average rates between 1941 and 1943 because of a special type of reserve ratio plan in effect in these states. This point is discussed in the following section.

[14] "Experience-Rating Operations in 1943," *op. cit.*, p. 19.

Wisconsin. The employer's reserve balance is expressed as a percentage of the highest of the following: (1) payroll for the year ending, (2) 3-year average annual payroll, or (3) 60 per cent of the highest annual payroll in any one of the three years. Under these methods, reserve ratios are lower and contribution rates higher, in periods of rising payrolls, than under the usual reserve-ratio plan or other experience-rating methods.

Nine other states, including Wisconsin but not Nebraska, collected additional contributions during 1943 under special "war risk" provisions added to their laws. Supplementary rates of varying amounts are assessed against employers with specified increases in their payrolls.[15] The statement of policy in the Wisconsin law expresses clearly the need for such provisions:[16]

> Wartime expansion has increased the payrolls of some employers substantially over their 1940 payrolls, with a corresponding increase in the potential post-war benefit liabilities of their reserve accounts, but without a corresponding increase in the level of those accounts under this chapter. Unless corrected, this condition would endanger the post-war solvency of such accounts, and would require higher contribution rates to be collected from employers generally, during the post-war years. Therefore, such accounts should now be built up toward more nearly adequate post-war levels, to help avoid (or reduce) the post-war rate increases which would otherwise result, by collecting contributions from such employers at higher-war-time rates, based on their payroll increases and the relative adequacy of their accounts.

While these provisions were undoubtedly included in part because the states realized that the federal government would bear the added cost where war contractors were involved, they are a step in the direction of correcting the anomalous results which experience rating has brought under rising payrolls. Yet apparently only in three of these states was the operation of the war-risk provision sufficient in 1943 to reverse the increasing trend toward reduced revenues from employer contributions.[17]

These war-risk provisions are presumably temporary devices. But it is not inconceivable that they may develop into more permanent methods by which states, or the federal government, can counteract the tendency of experience rating to reduce over-all contribution rates, without regard to individual employer stabilization efforts, in good

[15] For a full discussion, see Gladys R. Friedman, "War-Risk Contribution Provisions in State Unemployment Compensation Laws," *Social Security Bulletin*, Vol. 7 (May, 1944), pp. 2-8. Also, *"Experience-Rating Operations in 1943," op. cit.*, pp. 11-12, and Table 3, p. 14.

[16] Sec. 108.18(7) of the Wisconsin law.

[17] "Experience-Rating Operations in 1943," *op. cit.*, Table 3, p. 14.

times, and to increase them in bad times. The changes adopted in the reserve-ratio plans of Nebraska and Wisconsin are also designed to counteract this tendency, and deserve serious consideration by other states. One of the most serious objections to present experience rating in operation is that the ability of state reserve funds to pay future adequate benefits is unnecessarily jeopardized by rate reductions.

If standard rates of contributions were raised in periods of high unemployment and reduced in periods of low unemployment, it would still be possible to retain the experience-rating feature. Reductions from the current standard rate could be granted to those firms which met the necessary qualifications, or each firm's rate might be based on its experience over the cycle period. But the stabilization incentive might be reduced, and with present experience rating formulas the variations in standard rates would have to be still wider to compensate for the perverse effects of these formulas.

VI

Without variations in average contribution rates as suggested by the British proposal, the effects of experience rating on aggregate demand and employment will certainly be injurious. In periods of rising payrolls, contribution rates and expected revenues will fall, and in periods of falling payrolls, rates and revenues will have to be increased.

An analysis of these effects requires consideration of the probable incidence of the tax on employers' payrolls, which finances unemployment compensation exclusively in nearly every state. Though some economists are more inclined than others to stress shifting in one direction, most would probably agree that the incidence of this tax is diffused.[18] In perfect labor and product markets, it would eventually rest on the wage earners, but because of imperfections, it is probable that consumers bear some of the burden, through higher prices, and employers through reduced profits in certain firms and industries.

If the tax is eventually borne by workers, as some economists have contended, the effect of a decrease in average contribution rates during

[18] Various theories on the incidence of the payroll tax are well summarized by C. Ward Macy, in "Social Security Taxes in the War Finance Program," *Jour. Pol. Econ.*, Vol. LI (April, 1943), pp. 135-40. The best and most extended discussion in the literature is found in Seymour Harris, *Economics of Social Security* (New York, 1941), Pt. III. Professor Harris concludes: "The more or less accepted theory that labor ultimately pays the cost either through a reduction of money wages or of employment is subject to *important reservations. A substantial part of the burden falls elsewhere.* The marginal productivity theory upon which the theory of incidence has been based is, itself, subject to reservations and amplifications. . . . Furthermore, the theory of monopolistic competition with its concentration on imperfect elasticity of supplies of factors and of demand for commodities also suggests to the student of social security the possibility of putting part of the burden on the consumer and factors of production other than labor" (pp. 440-41).

good times and an increase in bad times is to accentuate the swings in worker incomes and hence in aggregate demand.[19] This result, of course, assumes no considerable time lag in shifting, and therefore is probably unrealistic.

But suppose the changes in contribution rates are reflected in higher or lower profits, or in higher or lower prices. It is clear that an increase in costs which raises prices or lowers profits does not furnish a sound basis for recovery. Conversely, during the boom period, when full employment has been reached, lower prices and increased profits resulting from reduced contribution rates under experience rating may have adverse results in the opposite direction.

Furthermore, if the prospect of lower contribution rates under experience rating furnishes an inducement for employment stabilization, as proponents contend, will the increases in average rates occasioned by falling employment act as a "tax" on employment? For every man hired in a period of business depression, an additional cost equal to 2.7 per cent of his earnings (or more in states with above-standard rates) will have to be paid by most employers. Yet at a time when the only problem in the hiring of men was to find them (as during 1943), the tax on payrolls in 40 states averaged only 1.8 per cent. To be sure, the difference is not great in percentage terms, but to the extent that payroll taxes are regarded as variable costs, even small absolute differences may be important.[20] In addition, an increase in variable costs during a period of depression may have a depressing effect on employers' investment decisions, thus further reducing aggregate demand.

VII

The effects of experience rating on aggregate demand are not the only effects worthy of consideration, however. Experience rating was directed primarily toward individual employers, though most states have modified the full incentive value of tax reductions by pooling contributions to insure greater adequacy of the total fund. What is the incentive value of experience rating in encouraging employment stabilization efforts by individual firms? This question has been the subject of much controversy between partisans on both sides.

It is my belief, based on field studies several years ago in Wisconsin when this state pioneered in experience rating, that the prospect of a

[19] The effect on worker incomes is, of course, offset to some extent by opposite variations in benefit payments.

[20] An interesting and unexplored question here is whether employers *do* regard payroll taxes as variable costs, or whether, through questionable cost-accounting practices, they consider these taxes as part of fixed overhead for the year.

tax reduction can start employers thinking of ways to iron out day-to-day or intermittent irregularities in employment and to reduce seasonal unemployment.[21] The prospect of a reduced contribution rate is a tangible financial incentive for many firms which have overlooked the intangible costs of irregular employment.

This is a real gain, if the cost is not too great. But once attained, it may be questioned whether experience rating is necessary to encourage employers to *continue* these desirable employment practices. Firms which have discovered, after stabilizing employment under the impetus of experience rating, that irregular employment is costly *in itself* are not likely to go back to their old haphazard methods of hiring and firing, transfers, producing excessive amounts of standard products in peak seasons and curtailing operations afterward, etc.[22]

Only where a close balance is achieved between the costs of stabilization (such as storage costs of inventory manufactured in advance of orders) and the lower contribution rate would the modification or abandonment of experience rating in its present forms result in a slackening of stabilization efforts where they are practical. Even in this case a firm may decide that the newly-discovered advantages of more regular employment and steady production offset the costs of attaining them.

Some other effects of experience rating in practice must be weighed against any positive gains resulting from greater efforts by employers to stabilize employment. Six points stand out in a review of the results under experience rating.[23]

1. The experience-rating formulas in use make it possible for an employer in a naturally stable business to qualify for a lower contribution rate without much effort on his part, while an employer in an unstable industry may be unable to qualify for the lower rate even though he is doing a better job of stabilizing than most firms in his

[21] "Employment Stabilization and the Wisconsin Act," *Am. Econ. Rev.*, Vol. XXIX, No. 4 (Dec., 1939), pp. 712-13, and chap. 4 of *Employment Stabilization and the Wisconsin Act* ([Employment Security Memorandum No. 10], Social Security Board, Washington, September, 1940). See also Herman Feldman, *Stabilizing Jobs and Wages* (New York, 1940), chap. xvi; and *To Make Jobs More Steady and to Make More Steady Jobs* (Minnesota American Legion Foundation, St. Paul, 1944), a collection of 109 case studies of employment stabilization, largely in states with experience rating. These case studies were made under the direction of Dr. Emerson P. Schmidt, formerly of the University of Minnesota, and they constitute the most comprehensive collection available.

[22] In 1937-38 officials of a number of Wisconsin firms which also had plants in states without experience rating stated that stabilization devices adopted under stimulus of the Wisconsin act were applied in the other plants, or that there was no difference in stabilization efforts between the different plants of the same company.

[23] The following discussion of effects of experience rating is not meant to be exhaustive. For a suggestive analysis, see Karl Pribram, "Employment Stabilization through Pay Roll Taxation," *Quart. Jour. Econ.*, Vol. LVII (Nov., 1942), pp. 142-52.

industry.[24] There are notable exceptions, of course, and strong advocates of experience rating always cite the fact that some employers in nearly every line of business qualify for lower rates. For example, 35 per cent of the rated accounts in bituminous coal mining got lower rates in 1943, and the same was true of 43 per cent of those in building construction. Yet 87 per cent of the rated accounts in finance, insurance and real estate, and electric and gas utilities—which are all comparatively stable industries—received lower rates in 1943.[25]

The fact that as many as one-third of the eligible employers in bituminous coal got lower rates would seem to be as much the result of the present demand for coal as of any special efforts they made to stabilize their employment. Similarly, high rates in ordinarily stable industries might be found in firms hit by wartime priorities or other controls. Only a field study of the particular firms would show the extent to which this is or is not true, and one of the few that have been made indicated that special characteristics of the firm's business played a more important part in rate reductions or increases than did individual stabilization efforts.[26] Consequently, the stabilization incentive, through rate reductions, is somewhat dulled.

2. Payment of higher contribution rates by firms in unstable industries and lower contribution rates by firms in stable industries may not be the best way to allocate the "social costs" of irregular employ-

[24] The contrast with accident compensation in this respect is striking. The contribution rate that an employer pays is a composite of the accident experience of the industry in which he is classified, and his individual accident experience *within* that industry. Thus it is possible for an employer with a good safety program to qualify for a rate lower than the average for his industry, even though he is in an industry where the accident hazard is high.

Would it be possible to do this in unemployment compensation? A member of the Social Security Board, Mr. George E. Bigge, has commented on this aspect of the problem: "To reflect individual achievement in this field it would be necessary to relate a given employer's experience to a norm for his industry, but this has been too difficult and is not attempted. England tried it for a time but soon gave it up." ("Strength and Weakness of Our Unemployment Compensation Program," in *Social Security in America,* addresses at the National Conference on Social Security sponsored by the Chamber of Commerce of the United States, January, 1944, p. 31.)

[25] "Experience-Rating Operations in 1943," *Social Security Bulletin,* Vol. 7 (Sept., 1944), Table 6, p. 18.

[26] Myers, *Employment Stabilization and the Wisconsin Act* (Employment Security Memorandum No. 10): "Close examination of the characteristics of firms within the same industrial classification or subclassification indicated that very few were comparable; in a very real sense, almost each firm was unique. One firm's line of products might be slightly different from that of its competitors. This was reflected in different seasonality of demand, and varying ability to manufacture for stock or transfer between departments. . . . These factors, rather than the sincerity and thoroughness of stabilization efforts, appeared to be the more usual explanation of differences in benefit-contribution percentages between firms in the same group" (p. 107). The same point was made in the Majority Report of the Committee on Employer Experience Rating of the Interstate Conference of Employment Security Agencies (Washington, September, 1940), p. 36.

ment. When confronted with the fact that a greater proportion of firms in stable industries qualify for lower rates than do those in unstable industries, advocates of experience rating shift their argument to "social cost" grounds. They argue that unstable industries *should* pay for a larger share of the costs of unemployment compensation than should stable industries.[27]

But this assumes that the incidence of the payroll tax is clearly on consumers through higher prices. To the extent that the tax is shifted to workers, because it is an added labor cost, or to owners through reduced profits, the social cost argument appears in a different light. Why should workers who stay in unstable industries pay for the costs of unemployment inherent in their jobs? With a few exceptions, the rate of pay in seasonal industries is not generally sufficient to compensate for irregular employment. Furthermore, if the tax is partly borne by profits, is it sound public policy to raise taxes (and reduce profits) in unstable industries—such as the capital-goods industries—when unemployment increases during downturn and depression?

3. Under present experience-rating provisions, employers may be encouraged to reduce benefits by devices which do not stabilize employment but which count equally in determining contribution-rate reductions. These have been discussed in more detail elsewhere,[28] and include the following: (1) under-employment through excessive spreading of work down to the benefit-rate level, (2) hiring during peak seasons workers who are ineligible for benefits, (3) laying off unskilled workers before they acquire eligibility for benefits under the law, and (4) laying off workers with low benefit rights or low "benefit wages" chargeable to the employer.

4. Employment stabilization may mean more stable employment for a smaller number of workers. When seasonal unemployment is reduced

[27] Although he is critical of certain aspects of experience rating, Professor Edwin E. Witte has taken this position: "Honest cost accounting requires that all costs be ascertained and properly allocated to the commodities produced or services rendered. An industry which operates intermittently occasions great costs to its employees and to society through its methods of operation. Whether it can or cannot operate more regularly, the unemployment which arises by reason of its intermittent or irregular operation is a cost which should be charged to the establishment producing the goods or services and which gets the profits of the enterprise. Every reason which can be advanced for contributions from employers only—and in all but six states all contributions come from the employers —logically leads to variable contribution rates—rates adjusted to risk and costs." *Social Service Review*, Vol. XIV (Sept., 1940), p. 433.

[28] "Employment Stabilization and the Wisconsin Act," *Am. Econ. Rev.*, Vol. XXIX, No. 4 (Dec., 1939), pp. 714-16. Professor Witte has condemned this aspect of experience rating, because "it is possible to reduce compensable unemployment without reducing unemployment, through taking advantage of the qualifications and exclusions of these laws so as to throw most of the unemployment into these groups among the employees who have no benefit rights. So long as this loophole exists, experience rating is very defective." *Social Service Review*, Vol. XIV, p. 435.

by manufacturing for inventory during slack periods, for example, fewer additional workers are needed in rush times. This same tendency, incidentally, is found in "guaranteed employment" plans where one class of workers does not participate in the guarantee, or in schemes such as the "decasualization" of the longshore industry. More stable employment for a smaller number of workers, however, is not necessarily bad, unless everyone agrees that the way to "reduce" unemployment is to spread work.

5. The competition of the various state legislatures to provide generous experience-rating provisions for employers in their states is said to have been at the expense of adequate benefit provisions.[29] This appears to be particularly true of benefit "disqualification" provisions. Under these provisions, workers who leave their jobs voluntarily for legitimate personal reasons (such as illness in family, lack of transportation, etc.) lose their entire accumulated benefit rights, even though they later are unable to find work, simply because their separation is "without good cause attributable to the employer."[30] Provisions of this sort are difficult to defend but the number of beneficiaries affected by them is probably not very great.[31]

Minimum and maximum weekly benefit rates, maximum duration of benefits, and percentage of beneficiaries exhausting their benefit rights before reëmployment are other tests of benefit adequacy. Here the differences between states with experience rating and those without it are not great enough to be significant, as Table III shows. Since 1941 there has been a gradual liberalization of benefit amounts and duration, in experience-rating states as well as in others, and this may continue when state legislatures meet during 1945. There is still much room for

[29] Friedman and Wandel, *op. cit.*, p. 10.

[30] George E. Bigge cites some concrete examples of this tendency in "Strength and Weakness of Our Unemployment Compensation Program," *op. cit.*, pp. 24-34. In his opinion, "This general tendency to impose more numerous and more rigorous disqualifications is one of the most serious developments of recent years, and there seems to be little doubt that it is related to increasing emphasis on tax reduction in the form of experience rating. . . . It is very significant that of the states which do not have experience rating not one has this kind of disqualification, especially the mandatory cancellation of benefit rights, and the double penalties; whereas in the states which have reduced rates (under experience rating), there has been a rapid spread of such disqualifications" (pp. 30, 32). States which do not have disqualification in the form of cancellation of benefit rights usually provide for a penalty by postponing benefit payments for a number of weeks. See also Ewan Clague and Ruth Reticker, "Trends in Disqualification from Benefits under State Unemployment Compensation Laws," *Social Security Bulletin*, Vol. 7 (Jan., 1944), pp. 12-23.

[31] Conclusive data are lacking. Paul A. Raushenbush, Director of Unemployment Compensation in Wisconsin, in his testimony before the George Committee, quoted a figure of 1.4 per cent of all claimants disallowed benefits in 1942 for "other reasons." *Hearings before the Special Committee on Post-War Economic Policy and Planning*, United States Senate, Part 3, "The Problem of Unemployment and Reemployment after the War; Unemployment Compensation" (Washington, 1944), p. 866.

improvement, especially in extending the duration of benefits, raising maximum benefit rates because of higher weekly wages,[32] and ironing

TABLE III.—BENEFIT STANDARDS IN STATE UNEMPLOYMENT COMPENSATION LAWS (as of January, 1944)

Type of Law	Minimum Weekly Benefit (average)	Maximum Weekly Benefit (average)	Maximum Duration of Benefits (aver. weeks)	Per Cent of Beneficiaries Exhausting Benefit Rights (1942)
Reserve ratio (25 states)	$5.50	$16.80	17.0	35.9%
Cliffe plan (7 states)	5.00	16.40	18.3	43.6%
Benefit ratio (5 states)	7.20	19.00	18.2	38.3%
Combined plans (2 states)	6.50	15.00	17.0	41.5%
Compensable separations (1 state)	6.00	22.00	18.0	22.5%
Total—all states with exp. rating (40 states)	5.70	17.10	17.4[a]	37.6%
Experience rating effective during (1944–45 (4 states)	5.25	16.50	17.5	47.8%
No experience rating (7 states)	5.96	16.70	17.5[b]	36.1%

Source: Minimum and maximum benefit rates from Helen Ward Tippy, "Comparison of Benefit Schedules, Unemployment Compensation, and Workmen's Compensation," *Social Security Bulletin*, Vol. 7 (Mar., 1944), Table 2, p. 8; data on maximum duration and per cent of beneficiaries exhausting benefit rights in 1942 from "Duration of Unemployment Benefits, Benefit Years Ended in 1942," *Social Security Bulletin*, April, 1944, pp. 16–23, Tables 1 and 2, and from state laws as subsequently amended during 1943.

[a] In 11 of the 40 states with experience rating in 1943, the duration of benefits was uniform for all eligible claimants, regardless of previous wage credits. Duration was variable in the other states.

[b] Four of the 7 states without experience rating had uniform duration provisions.

out inequalities between states. But this need for improvement is not confined to states with experience rating. Only if the pressure for con-

[32] There is a possible danger, however, that a high benefit rate based on wartime weekly wages with overtime would be too high a percentage of weekly earnings at a 40-hour week, and that "malingering" might be encouraged as a consequence.

tinued low payroll taxes prevents needed liberalization of the benefit structure in 1945, can experience rating be blamed.

6. It is clear from the earlier discussion of variations in contribution rates and revenues under experience rating that the ability of some state funds to provide for future large demands is being endangered, and in many other states this may be true if benefit standards are liberalized.[33] This possibility is less likely in the states with "war risk" provisions in their laws, but it should be remembered that during 1943 only 9 of the 40 states with experience rating had these provisions in effect. Furthermore, of the 40 states with experience rating in operation during 1943, only 16 provided for higher-than-standard rates as a partial offset to the loss of revenues through lower-than-standard rates, and two of these abandoned higher-than-standard rates during 1943.[34]

VIII

The conclusions reached in this brief reëxamination of experience rating in state unemployment compensation laws may be summarized as follows:

1. Variations in contribution rates and revenues for payment of benefits are exactly the opposite of the variations in social security contributions suggested as desirable over the cycle by the British White Paper on *Employment Policy*.

2. Experience rating was intended to encourage individual employers to stabilize employment. Yet the mechanics of experience-rating provisions make it possible for employers as a group to qualify for lower

[33] The desire to keep experience rating has also led many states to oppose any tendency toward a national system of unemployment compensation, and the existence of 51 separate accounting reserves in Washington means that a state faced with heavy post-war unemployment might exhaust its reserve while another state more fortunately situated for the post-war period would have ample funds. Yet the latter states will oppose any suggestion that some of their revenues ought to be used to pay benefits in other states. This is a little bit like a man's saying that the fire insurance company should not use *his* premiums to pay claims because *his* house has not yet burned down. It is also reminiscent of the "plant reserves" controversy in Wisconsin. A "balancing account" was eventually established in that state to take care of exhausted company reserves, and the "Federal unemployment account" established by Congress in the Social Security act amendments of October, 1944, is a step in the same direction.

[34] These were Cliffe-plan states, Delaware and Texas. "Experience-Rating Operations in 1943," *Social Security Bulletin*, Vol. 7 (Sept., 1944); Table 4, p. 15. Two additional states, Indiana and Oklahoma, will have a higher-than-standard rate beginning in 1945 (Table 2, p. 13).

The Unanimous Report of the Committee on Employer Experience Rating of the Interstate Conference of Employment Security Agencies (Washington, 1940), recommended that "it is essential to a sound experience-rating system that the maximum contribution rate should be higher than the general rate of 2.7 per cent which would presumably exist if there were no individual rate variations" (p. 45).

contribution rates when employment and payrolls are rising, largely regardless of their own individual employment stabilization efforts. Increases in contribution rates generally will be necessary, on the other hand, when employment and payrolls are declining.

3. The probable effect of these variations in contribution rates and revenues is to accentuate, rather than to counteract, the swings that ordinarily occur in aggregate demand. Thus, the effect may be unstabilizing on the economy, although the intended effect was to encourage stabilization of employment by individual firms. Furthermore, increases in average rates in depression may act as a tax on the giving of jobs.

4. Although experience rating can serve as an inducement to employers to reduce intermittent and seasonal employment irregularities, which are more within their control, the gains from such stabilization, once they are realized, may be sufficient in themselves to encourage continued efforts. After an initial period of several years, therefore, the novelty of the incentive may wear off.

5. A review of some of the other effects of experience rating in operation indicates that (a) rate reductions are related as much to the stability of the industry as they are to stabilization efforts of the firm, (b) such variations in rates between industries may not be a sound method of allocating the "social costs" of unemployment, (c) firms may increase their chances of qualifying for lower rates by using devices which avoid benefits but do not stabilize employment, (d) employment stabilization may result in more stable work for a smaller number of workers, although this is not necessarily bad, (e) competition between states to liberalize experience rating appears to have been at the expense of adequate benefit provisions so far as "disqualifications" are concerned, and (f) present variations in contribution rates and revenues under experience rating jeopardize the ability of states to meet large drains on their funds in the future, especially if benefits are liberalized.

6. The "war risk" provisions effective in 9 states during 1943 are a significant development because they are a recognition of the unwisdom of lowering contribution rates generally in periods of rising payrolls. Provisions of this type might well become a permanent part of state unemployment compensation laws.

So long as unemployment compensation is developed and administered in 51 different jurisdictions, however, it seems unlikely that the ingenious suggestion involved in the British proposal will receive much encouragement in this country. The only practical possibility in the immediate future is for the 44 states whose legislatures meet during 1945 to consider the strengthening of their unemployment compensation

laws in terms of reserves and benefit standards. Continued concern about reducing payroll tax rates in a period of high payrolls can only lead to an accentuation of present undesirable results.

7. This reëxamination of experience rating suggests the general conclusion that, without proper safeguards in the form of war-risk provisions, or improvements in the experience-rating formula as in Nebraska and Wisconsin, the probable social gains from experience rating as it now exists are outweighed by its disadvantages. There is a strong movement in Washington to federalize unemployment compensation and eliminate experience rating, and there are equally strong efforts in the states to retain the present federal-state system with experience rating of each state's choice. Logically, there is no reason why some form of experience rating could not be continued under a federal system, or why certain safeguards and minimum standards could not be incorporated in the state systems. Unfortunately, the whole issue is tied in with a political controversy, and therefore it is not likely to be resolved solely upon its own merits.

FULL EMPLOYMENT IN A FREE SOCIETY

By Arthur Smithies*

I. *Introduction*

In his *Report on Full Employment in a Free Society,*[1] Sir William Beveridge has been untrammeled by official reticence in stating what he considers to be the implications of a full employment policy. He contends that, to deserve the name, a full employment policy must mean that the central government accepts responsibility for the level of employment: "Full employment cannot be won and held without a great extension of the responsibilities and powers of the State exercised through organs of the central Governmen . No power less than that of the State can ensure adequate total outlay at all times, or can control, in the general interest, the location of industry and the use of land. To ask for full employment while objecting to these extensions of State activity is to will the end and refuse the means. It is like shouting for victory in total war while rejecting compulsory service and rationing" (p. 36). He reinforces his argument by demonstrating that full employment has not been maintained for extended periods in the past, and arguing there is no theoretical reason to believe that it will be maintained in the future if the State does not accept this responsibility.[2]

Sir William goes further in his definition of the fullness of full employment than is usual amongst economists. In rejecting definitions which permit the number of unfilled vacancies to be less than the number of unemployed, he states: "Full employment in this Report means more than that in two ways. It means having always more vacant jobs than unemployed men, not slightly fewer jobs. It means that the jobs are at fair wages, of such a kind, and so located that the unemployed men can reasonably be expected to take them; it means by consequence, that the normal lag between losing one job and finding another will be

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[1] Sir William H. Beveridge, ***Report on Full Employment in a Free Society*** (London, Allen and Unwin, 1944); ***Full Employment in a Free Society*** (New York, Norton, 1945). Page numbers in both editions are identical.

[2] Appendix B.

very short" (p. 18). In other words, "the labour market should always be a seller's market rather than a buyer's market" (p. 19). Whether or not a policy based on this ambitious definition is practicable is one of the most debatable questions raised by the book, and must be subjected to exhaustive discussion. However, even if it is agreed that employment should be stabilized at a level somewhat lower than Beveridge prescribes, the principles that should govern a full employment policy are in no way impugned.

As I have said, Beveridge bases his case for a full employment policy on the alleged failure of private enterprise alone to provide satisfactory levels of employment. However strong the case may be on this ground, an irrefutable case can be made on the ground that the inescapable functions of government after the war will be so large that a policy which has due regard to the level of employment will be mandatory.

Even according to the most conservative estimates for the United States the post-war federal budget will be at least twice its size in the heyday of the New Deal. With programs of this magnitude, a fiscal policy that ignored the impact of the government's actions on the national economy would only by the sheerest accident successfully navigate the channel between unemployment and inflation. Suppose, for instance, that full and stable employment could be maintained with a balanced budget and a given tax system. Then any substantial change in the types of taxes collected, such as a change from direct to indirect or from corporate to individual, would almost certainly have inflationary or deflationary consequences. This, of course, has always been true, but when government programs were small in relation to the whole economy, these consequences could be ignored. Now they cannot. It is interesting to note that British economists expect that in the first postwar years, the principles of national budgeting propounded in the Beveridge report will have to be applied in England to avoid inflation rather than to eliminate unemployment.

The three conditions for full employment propounded in the Report are (1) adequate total outlay; (2) controlled location of industry; and (3) organized mobility of labor. These conditions are held to be necessary, but it is admitted that they are not sufficient if full employment is to be associated with a stable price level. By far the greatest attention is given to the question of outlay, but one of the important contributions of the Report is that due recognition is given to the need for attacking unemployment from the supply side as well as the demand side. I shall consider these conditions in the following sections.

II. *Adequate Outlay*

Maintaining adequate outlay means that the national income must be held at a level which is consistent with full employment. The Report

classifies outlays as: Private Consumption Outlay; Net Private Investment Outlay; Balance of Payments Abroad; Public Outlays on goods and Services from Revenue; and Public Outlay on Goods and Services from Loans. The desired total outlay can be reached through government action by any of three main routes or by a combination of them. These routes are:

> "Route I. Increase of public outlay, leaving rates of taxation unchanged.
>
> "Route II. Increase of public outlay, with all-round increase of taxation sufficient to balance public income and expenditure.
>
> "Route III. All-round reduction of rates of taxation, leaving public outlay unchanged" (p. 142).

This formulation assumes, of course, that the economy is subject to chronic unemployment. If these policies were reversed they would indicate the methods of avoiding inflation.

Route I stresses public outlay and its repercussions through increased income on consumers' outlay. Route III achieves the desired increase in total outlay by increasing disposable private income and thereby private outlay. Route II, which Beveridge calls the path of orthodox finance, increases total outlay in the same way as Route I, but since taxes are increased *pari passu* with expenditures, private outlay tends to be reduced. However, the whole operation expands total outlay since it is assumed that taxes are paid partly out of savings. The choice of routes will have a marked bearing on the relation of public to total outlays at the full employment level of income. For instance, if full employment had been achieved in Great Britain in 1938, public outlays would have been 21 per cent of the total with Route I, 33 per cent with Route II and 15 per cent with Route III.[3] Government loan expenditure would have been 4.4 per cent of total national expenditures with Route I, zero with Route II and 6.6 per cent with Route III. It is worthy of comment that these estimates assume the same rate of private capital formation no matter which route is chosen. The Report is rightly reluctant to make estimates of private investment under the three hypotheses, but the fact remains that the three routes may have very different effects on private investment. It would be interesting, indeed, to know whether business would respond with more enthusiasm to the low taxes, high consumers' demand, and high deficit of Route III or to the high taxes, low consumers' demand, and the balanced budget of Route II.

[3] These statistical estimates, together with estimates for the post-war period are the subject of a most interesting statistical appendix to the Report prepared by Mr. Nicholas Kaldor. Beveridge also acknowledges his general indebtedness to the Institute of Statistics at Oxford, and in particular, to the volume of essays on *The Economics of Full Employment* published (B. H. Blackwell, Oxford) simultaneously with the Report.

For 1938 in Great Britain, Beveridge would have rejected Route III on the ground that public expenditure in that year was not sufficient from the social point of view. While tax reduction could have produced enough aggregate demand, greater social utility could have been produced by some increase in public expenditures. He also dismisses full application of the orthodox financial Route II with the remark that, "Rigidly orthodox finance, in the sense of an annually balanced budget, involves, in the political and economic conditions of Britain, an impractical route to full employment." Although he does not state what those conditions are, I imagine that a solution which required public outlay to amount to 33 per cent of the whole national income would not have been acceptable to the United Kingdom in 1938. Beveridge does not regard budget balancing as mandatory. If the productivity of the British economy increases as it has in the past, a substantial annual increase in the national debt could occur every year without increasing the proportion of interest payments to national income.[4] Consequently, interest charges could increase, and full employment could be maintained and inflation avoided without further increases of tax rates or reductions of other items of government expenditure. He is also the easier in his mind about deficits since a substantial part of government outlays will be for productive durable goods and, "Few people will expect that all these should be paid for out of current revenue" (p. 149). His chief concern with an increasing national debt is that it enlarges the *rentier* interest. He evidently does not contemplate that this tendency will be offset by lower interest rates or by the central bank increasing its holdings of government securities.

Having rejected Routes II and III in their pure form for 1938, Beveridge turns to Route I, the public outlay method. However, he does not insist on avoiding increases of taxation. On the contrary, one of his rules for public finance is that "it is better to provide the means for outlay by taxing than by borrowing" (p. 147). This, however, does not mean Route II. On what it does mean he is not particularly clear, and he finally falls back on the rule of thumb, that current expenditures should be met by taxation and capital expenditures by borrowing.

One of the great contributions of the Report is its out-of-hand rejection of expenditure for its own sake. Building pyramids may have provided full employment for Egypt, but in addition the Egyptians evidently approved of them for their own sake. The United States requires its pyramids to be equipped with central heating and indoor plumbing. If the notion that public expenditures should be undertaken for no purpose other than providing employment is generally accepted, public administration would almost inevitably become irresponsible. Beveridge argues that the way to full employment is to destroy "the

[4] Appendix C, p. 399.

giant evils of Want, Disease, Ignorance and Squalor, which are a scandal and a danger" (p. 150). If the public programs do these things, he contends, there would be no question of exercising the imagination to find new fields of expenditure to provide employment. The problem would rather be one of taxing to restrict private expenditures in order to make room for urgent public outlays. Beveridge speaks with great authority on the needs of Britain; we need a similar appraisal for the United States.

On the question of taxation, the Report is far from complete, and as I have indicated above, the relation of taxation to expenditures is not clear. However, the essential point is made that if the government does pursue a full employment policy, the function of taxation is to achieve the desired balance between private and public expenditures in a way that will maintain full employment and avoid inflation. Rather than adopt the double-budget principle as a rule of thumb, the Report might well have followed the line suggested by the three routes. A given increase in total outlay can be achieved either by increasing expenditures or reducing taxes. Which alternative is chosen should depend on a comparison of the social utility of the increased public expenditures, on the one hand, and of the increased private expenditures resulting from the tax reduction, on the other. By this process of weighing alternatives expenditures and taxation should be adjusted so as to achieve the desired level of total outlay. At that level the "marginal social utility" of taxation should be equal to the "marginal social disutility" of taxation. (And if taxation is to be based on the principle of equal sacrifice the marginal disutility of taxation should be the same for all groups taxed.)

Application of this procedure would let the chips fall where they may so far as the government's budget is concerned. The rule may result in a deficit, a surplus or a balance. If it is insisted also that some particular budgetary condition should be imposed, it would be necessary to sacrifice either the employment or the utility condition. In a full employment economy, it would, of course, be the latter. The discussion of the three Routes has indicated that full employment is consistent with any particular budgetary condition. With this formulation, I would say that Beveridge rejects Routes II and III on the grounds that, with Route II, the marginal disutility of taxation would be greater than the marginal utility of expenditures, while with Route III it would be less.

Of course, society may have objectives other than achieving full employment and equalizing sacrifices. It may want to redistribute income and wealth, to provide special incentives, *e.g.*, to private investment, or to discourage consumption of whisky. Such objectives would naturally call for modification of the principles suggested above.

The process of balancing alternatives which I have indicated is

clearly one that cannot be performed by the economist alone. It must result from the operation of the whole democratic process. However vague this may be, I prefer it to the double-budget principle since the latter may lead to public construction of dubious value when it would be preferable to reduce taxation, and to underemphasis of expenditures for social welfare merely because they fall in the current rather than the capital budget. Needless to say, Beveridge does not make such errors in his policy recommendations, but this is in spite of his advocacy of the double-budget principle. No one could maintain that the Report is hag-ridden by financial rules of thumb.

III. *A Post-War Full Employment Program for Britain*

The program proposed in the Report makes a frontal attack on the Giant Evils. It includes the comprehensive social security measures proposed in the Beveridge Social Security Report, education, public health, nutrition, and town and country planning. It is also recommended that the government should solve the special unemployment problem in the British coal mining industry by purchasing the coal output and selling it at prices that would insure heating at low costs to consumers.

The fluctuations in private outlays should be offset from year to year by varying the aggregate amount of total investment expenditure, public and private. The Report recommends that the whole of investment outlay should be controlled in order to achieve a consistent plan. Where private investment in particular should be encouraged, this should be done by low interest rates and incentive taxation.

Appendix C makes tentative statistical estimates of what is needed to achieve full employment in post-war Britain. Current expenditures are first estimated and taxes are set initially at a level sufficient to meet them. Then various investment plans are worked out. If the investment plan should in conjunction with other outlays yield a total greater than the full employment outlay, taxes should then be further increased and the excess of revenues over current expenditures should be appropriated to a sinking fund. On the other hand, if the investment plan does not yield sufficient total outlays, taxes should be reduced so that a deficit will appear in the current budget. The estimates indicate that, except in one case where a substantial import balance was assumed, the need for investment will be so great that a substantial surplus in the current budget will be required to avoid inflation. The estimates do not indicate how much of the investment will be public and how much private, and therefore the extent of government borrowing is not indicated. However, it seems to me that the magnitude of the programs that are held desirable is such that if they are adopted it

will be necessary in the first post-war years to bring the total government budget substantially into balance in order to avoid inflation.

The question may be raised whether it is desirable to make public investment bear the brunt of offsetting short-run fluctations in private outlays. The Report might well have considered fluctating tax rates as a stabilizing device. In his criticism of the British government's *White Paper on Employment Policy,*[5] Beveridge objects to the notion of varying social security contributions as a violation of the insurance principle and suggests that it will be preferable to vary individual income taxes. But this does not appear as part of his positive recommendations.

IV. *Budgeting for Full Employment*

The Report recognizes that new administrative machinery or, at any rate, a profound revision of administrative practice is necessary if full employment is to become the policy of the nation. Beveridge recommends that every year the Minister of National Finance should submit to Parliament an employment budget. This budget would present estimates of the amount of private outlays on consumption and investment and the balance of payments that could be expected at the full employment level of national income. The difference between the total of these items and the desired total would represent the gap that the government should fill, either by increased expenditures or by positive measures to increase private expenditures. The Minister of National Finance would be assisted in his task by a National Investment Board which would make advance estimates of the amount of private investment that was planned, and would make recommendations as to the amount by which private investment should be increased and public investment undertaken.

This Board would also be empowered to provide government guarantees or loans at low interest rates to encourage the types of private investment that are held to be in the interests of the economy.

The Report recognizes three distinct fiscal functions. First, the Minister of National Finance will be concerned with total outlay. He will determine what government expenditures and revenues should be in order that public and private outlay combined should add up to the required total. Second, the department which controls public expenditures should exercise its customary vigilance to insure that the government gets value for its money. Third, the executive departments will be responsible for developing and executing programs within the limits set by the Minister of National Finance and under the supervision of

[5] Originally published in the *Economic Journal,* Vol. LIV, No. 214 (June-Sept., 1944), and now reprinted, with minor changes, as a Postscript to the Report.

the Control Department. To the existing executive departments in Britain should be added a new Ministry of National Development which would cover the whole field of town and country planning, housing and transport.

The relation between the Ministry of Finance and the Department of Control raises some difficult questions of public administration. The Ministry of Finance obviously cannot determine aggregate expenditures in a vacuum. Different programs will have different effects on employment; and whether employment should be stimulated by increasing expenditures or reducing taxation will depend on the urgency of the programs from the social point of view. The Ministry must be much more than a statistical manipulator; it must have at its disposal extensive information gathered by the Department of Control. Considerations such as these argue for amalgamation of the two departments. But can the same department recommend an expansion of the whole government program and at the same time maintain its standard of vigilance over the individual programs? My own answer would be that, while the two functions should be kept distinct, they should be exercised by different divisions of the same department rather than by different departments. In the private field, I am not aware that industry takes great pains to protect its cost accountants from those who determine the size of total output.

V. *The Location of Industry and the Mobility of Labor*

The Report is a timely reminder to economists in this country that the demand for labor is only one side of the picture. In an exhaustive analysis of peacetime unemployment in Britain, Beveridge demonstrates the extremely wide fluctations in the unemployment percentage that can occur as between regions. For instance, in 1929, unemployment was 5.6 per cent in London, while it was 19.3 per cent in Wales. In 1932, the corresponding figures were 13.5 per cent and 36.5 per cent. These differences indicate that unemployment cannot be eliminated merely by achieving adequate demand. Or, if it were eliminated by this method, it would be necessary to produce considerable inflation before unemployment disappeared in the more depressed areas. Consequently, Beveridge considers it essential that the state should assume responsibility for the mobility of labor and, in some cases, for the encouragment of new industries in regions of labor surplus. The importance of this aspect of a full employment policy can hardly be overemphasized in the post-war period. The migrations that have taken place to meet the needs of war production, both in Great Britain and in this country, will have produced a distribution of the labor force that will require considerable readjustment to meet the requirements of

peacetime demand. To control the location of industry would be a major function of the National Investment Board. The Report, however, does not make specific recommendations as to what administrative machinery would be required to handle the rather more delicate problem of controlling and encouraging personal migration.

Measures to insure that the demand for labor is in the same place as the supply should not be thought of merely as devices to obtain the full advantage of a given aggregate demand. If labor is enabled to move from a surplus area to a deficit area, employment will increase whether or not additional measures are taken to increase aggregate demand.

VI. *Internal Implications of Full Employment*

Beveridge recognizes that a full employment policy brings in its wake special price and wage problems. If a sellers' market is created for labor, will labor and business refrain from taking undue advantage of their positions? If labor as a whole presses for money-wage increases which are greater than the increase in the productivity of labor, prices will be forced up. If labor in a single industry obtains such an increase, the price of the product of that industry will increase, and also unemployment will tend to increase both in that industry and elsewhere. Moreover, a sellers' market for labor will also mean a sellers' market for the products of industry. If productive resources are fully employed, the forces of competition, such as they are, will be weakened and monopolistic action will produce a continual upward pressure on prices.

There is little room for debate on these matters. We have had a sellers' market during the war and every belligerent country has had to resort to direct controls of prices and wages. Will these direct controls also be necessary in a full employment peacetime economy? Of course, the needs of war, have produced an aggregate demand greater than is necessary merely to achieve full employment. There can be little question that the need for direct controls would be less in peacetime than in wartime, but still it would not disappear.

What if the state acknowledged that unemployment of labor and unused capacity in industry were necessary to preserve competition and consequently budgeted not for full employment, but, say, for 5 per cent unemployment? The answer is that while this would diminish inflationary pressures, it would not eliminate them. No amount of unemployment that has ever occurred has eradicated monopoly. On the contrary, contracting markets have frequently produced the opposite tendency.

Suppose the government is budgeting for some predetermined level of employment, and a monopolistic industry or a monopolistic union forces a price or a wage increase and throws out the Minister's calculations. Is he then to increase his budget, or is the state to discipline the monopo-

list; and if the latter, how is it to be accomplished? This is a dilemma which no intelligent opponent of a full employment policy fails to emphasize and which no supporter can afford to ignore.

Beveridge's answer to all this is, first, that the trade union movement as a whole must accept responsibility for not pressing for wage increases in excess of productivity increases. Second, collective bargaining agreements should contain clauses by which the parties are pledged to accept arbitration and to give no support to strikes or lockouts in defiance of arbitration. Third, prices of essential commodities should be controlled. Fourth, the state should scrutinize and control monopolies, and should incorporate natural monopolies as public corporations. But it should not attempt to abolish monopolies which are the natural product of industrial growth. Beveridge says, "As a general principle it may be laid down that business competition must be free, not forced. If in any industry a strong tendency develops towards collaboration between independent units or towards their amalgamation, the part of the State should be not to try vainly to stop that tendency but to bring it under control" (p. 204). Beveridge does not, of course, maintain that monopoly control is needed only in a full employment economy. In fact, he is inclined to think that the monopolistic tendencies produced by full employment may be weaker than those produced by unemployment and shrinking markets.

To summarize this part of the discussion, it seems to me that the degree of control necessary will depend both on the "fullness" of the full employment aimed at, and on the coöperation of business and organized labor. If business and labor have the power to force prices and wages up, they also have the power to exercise restraint. Business and labor can preserve free collective bargaining and free pricing by coöperative action to secure price stability. Without this coöperation, the alternatives are direct government controls or abandonment of the full employment policy, neither of which is in the general or in any sectional interest.

VII. *International Implications of Full Employment*

The Report maintains that a non-discriminatory multilateral trading system requires each of the great industrial countries of the world to pursue full employment policies at home or to take measures to insulate the rest of the world against the consequences of its not doing so. If, for instance, the United States becomes depressed and its imports contract, other countries will become short of foreign exchange and will be forced to contract their imports. Beveridge argues that it is unreasonable that other countries should suffer from the failure of one country to maintain employment. Therefore, they should insulate themselves by maintain-

ing or expanding their purchases from each other and restricting imports from the United States. The United States could relieve the situation to some extent by increasing its foreign lending if its imports decline; but this would not necessarily compensate the particular countries which had suffered a loss of export markets. It might result rather in increasing United States exports. Whatever the economic theorist might argue is correct international behavior, there can be little doubt that some countries are, in fact, likely to pursue policies of insulation.

Full employment, however, may not be enough. Some countries may still have export surpluses even though they do maintain full employment. Beveridge therefore requires a second condition for multilateral trading, namely, that "every country taking part should undertake to balance its accounts with the rest of the world" (p. 225). Of course, in a tautological sense every country must necessarily do this by hook or by crook. What he obviously means is that the export surplus countries must accept responsibility for achieving equilibrium by increasing their imports or their foreign investment. Otherwise, deficit countries will be forced to balance their accounts by either deflationary or restrictive and probably discriminatory measures which will disrupt the multilateral trading system.

The third condition for multilateral trading is that "the countries participating should have a reasonable stability and continuity of foreign economic policy" (p. 228). This does not mean that "the different nations have to surrender freedom to frame their own economic policies. They may be high tariff or low tariff countries. They may have tariffs directed to favor production of one sort rather than another—to prevent Australia from becoming a sheep run or to prevent Britain from becoming a country of factory and office workers without agriculture" (p. 228).

Beveridge does not seem optimistic that these conditions will be sufficiently fulfilled to make a world-wide multilateral system practicable. On the other hand, he does not envisage the opposite extreme of bilateralism. His chief question mark is clearly the United States. If the full employment policy of this country is a success, the greatest obstacle would be removed. While a world system would be the best for Britain, Beveridge seems inclined to think that the nearest approach to this ideal would be the formation by full-employment countries of a *bloc* within which multilateral trade would prevail and which would control trade with the willful and perverse world outside.

VII. *Conclusions and Comparisons*

There can be no question that the Report is the most important work on economics published in England since the *General Theory* revo-

lutionized economic thought. It makes full use of the beautifully simple Keynesian apparatus to discuss employment policy in quantitative terms in its sociological and administrative setting. The argument has the great advantage of proceeding in terms of aggregate demand in relation to supply rather than in terms of savings and investment. While the aggregate demand analysis as presented in Chapter III of the *General Theory* is readily understandable, the savings and investment formulation gave rise to an obfuscating stream of argument that was only ended by the war. But there is more to it than alternative forms of presentation. Keynes has admited in discussions in recent years that at the time of writing the *General Theory* he felt that all possible emphasis should be placed upon encouraging investment, and he moulded his analytic presentation accordingly. The essence of the Beveridge Report, on the other hand, is that all the main components of aggregate expenditures should be ordered in a way that will secure the greatest social utility.

Perhaps the greatest contribution of the book is its exposition of the rôle of government. Too much of our economic thinking in the thirties awarded to the central government the dual function of running its own affairs and tinkering with the capitalistic system in its spare time. Beveridge's thesis, on the other hand, is that the government, in running its own affairs, cannot ignore the effects of its actions on the capitalistic system, and must adjust its programs so that government and business jointly achieve full employment. The notion of the doctor prescribing for a sick patient is discarded in favor of the principle of partnership, with the qualification that the government is responsible if things go wrong.

His view of the responsibilities and functions of government leads him to attack the British *White Paper on Employment Policy* as a pusillanimous approach to the problem. He maintains that "It is an anti-cycle policy, not a policy of full employment; the term 'full employment' does not occur in the White Paper, except, somewhat oddly, in two passages in each of which the government is thinking rather of what others ought to do than of what the government ought to do" (p. 272). He charges that the government has little more than public works to offer and that is not enough. I feel that Beveridge is rather harsh on the official program, since, as he admits, it does acknowledge the central point that a policy for maintaining total expenditure is the responsibility of government. Differences in forthrightness between the two proposals may well be explained in terms of the distance between Whitehall and Oxford.

The Beveridge Report is in line with recent economic thought in the

United States both inside and outside the government. The President in formulating a Bill of Economic Rights last year asserted that the people, in effect, had a right to be rid of the Giant Evils. In his state-of-the-union message this year he indicated that their elimination would be an integral part of his post-war employment policy. Economic statisticians have used techniques very similar to those employed by Beveridge in evaluating the post-war employment problem. Outside the government, Professor Hansen has played a notable part in translating economic theory into specific policy proposals. No one can fail to be struck by the parallel between the Murray Bill now before Congress and the institutional proposals of the Beveridge Report.

Yet, official statements in this country and elsewhere have not gone as far as Beveridge in defining the responsibility of the state. He comes very close to the notion of a state guarantee of full employment. The Murray Bill on the other hand, as submitted to Congress, does not contain the idea of a guarantee which appeared in earlier drafts, and I surmise that the reason was that the proponents of the bill were not prepared to recommend the degree of government control of economic life that might be necessary to make a guarantee effective. This reluctance is understandable and, I think, wise. Now that the principle of adequate effective demand is so firmly established and widely accepted, it seems to me that economists should devote particular attention to defining the responsibilities of the state.

Whether or not one accepts the full Beveridge prescription, no one can afford to ignore this book. It demonstrates more effectively than anything that has gone before the economic functions of government in the capitalistic state. As I said above, the time has passed when the government's rôle was so small that it could ignore the economic consequences of its acts. It cannot now be neutral. Its policy must be positive. Sir William Beveridge's clarity of thought and lucidity of exposition as well as his courage and imagination should go far in bringing about the general realization that "The time calls for total war against unemployment and other social evils, not for a war with inhibitions" (p. 274).

A CROSS SECTION OF BUSINESS CYCLE DISCUSSION[1]

By Jacob Marschak*

"The purpose of the criticism . . . was not so much that the people did not like what [the painter] was doing as that they wanted to know exactly what was in his mind."—A Bell for Adano

The task of Professors Ellis and Haberler, and of the committees over which they presided, was like the task of directors of an art gallery, cramped into a small house and open to a wide public. The collection must be small yet representative, therefore broad. It must be broad but not shallow, that is, every piece must be significant. But, while significant, no piece should puzzle the busy layman who strays into the gallery to rest and enjoy.

The editors could not have accomplished the task more perfectly. As one revives in one's memory a twenty years' crop of blue, green, and red economic periodicals, one finds that no bouquet could be gathered with more taste and sense of proportion—yes, with more love. This impression is strengthened by Professor Somers's excellently classified bibliography of some 800 articles "on business cycle theories." About one in every forty of these articles has been reprinted in the volume under review. I doubt very much that more than one or two substitutions could be suggested to make the selection more weighty or more representative.

The volume is so representative that any reader interested in the progress of economics is rightly tempted to regard it as a sample of the present state of our discipline. What results have been achieved? What tools are being handed to the next generation (for the volume is also intended as a textbook) for further achievement?

* Cowles Commission Papers, New Series, No. 9. The author is professor of economics at the University of Chicago.

[1] *Readings in Business Cycle Theory*, selected by a Committee of the American Economic Association, Volume II of the Blakiston Series of Republished Articles on Economics, with a Preface by Howard S. Ellis, chairman, General Committee on Republications; an Introduction by Gottfried Haberler, chairman, Selection Committee; and a Bibliography of Articles on Business Cycle Theory compiled by Harold M. Somers. (Philadelphia: Blakiston, 1944. Pp. xvi, 494. $3.50.)

When referred to for the first time, the articles included in the volume will, in general, be quoted only by the author's name and the year of first publication. Page numbers refer to the pages of the volume, not to those of the original publications.

I

I hear that the progress of seismology may be due, in the main, either to better instruments and theories, or to frequent earthquakes. In our case, the earthquakes did most of the job. The 1930's experienced depression. The 1940's experienced full employment. To be sure, the present volume contains little evidence of the direct utilization by economists of those contemporary experiences (an exception is an article by John Williams, 1941; while the factual material used in Alvin Hansen's article, 1939, chosen for the volume happens to refer to population and other trends rather than cycles). Yet it is difficult to imagine that the revolution in our outlook has been due to the tools: they are too blunt! or to the theories: they are too inarticulate! This has happened: the greatest among us, and especially the genius of Keynes, have sensed history and have had the courage and intuition to recast theory accordingly.[2] The historical facts have been so forceful that no particularly clear and consistent theory and almost no measurements were needed to carry the conviction, or at least the feeling, that old economics could not explain all the facts and ought not to direct all policies.

Rather symptomatically, the field of discussion itself has not been clearly defined. The present volume, for example, purports to deal with "business cycle theory." Yet, as in many university courses of the same name, much more is attempted in its component articles than explaining business fluctations. There is, of course, no harm in a name, provided distinct matters are named distinctly. Four articles (by Schumpeter, 1935; Kondratieff, 1926; Mitchell, 1923; and Tinbergen, 1940) do attempt to explain, or at least describe, the phenomenon of quasi-periodical changes in economic variables; they form the volume's Part I (Over-All Picture of the Business Cycle and Method of Analysis). Part VI on Special Commodity Cycles contains Mordecai Ezekiel's article, 1938, on the cobweb theorem. Of the remaining sixteen articles, hardly more than four or five deal with the trade cycles proper[3], or at least with the process of adjustments (or explosions: so-called cumulative processes) in response to external trends or shocks: in short, with economic dynamics.[4] Faithfully and fairly reflecting the present state of discussion, the bulk of the volume is devoted, in essence, to the static question: *viz.,* assuming that equilibrium is always reached

[2] R. L. Klein, *The Keynesian Revolution* (unpublished thesis, Massachusetts Institute of Technology, 1944).

[3] Hawtrey, 1926.

[4] J. M. Clark, 1917, and P. A. Samuelson, 1939, on the acceleration principle; J. M. Clark, 1939, on "compensatory devices"; F. A. Hayek, 1935, on price expectations, monetary disturbances and maladjustments.

somehow, what will it be under given conditions? For example: assuming that the money value of the supply of all goods (identical with the total money income earned in their production) has somehow reached equality with the money value of the demand for all goods, what will be the money value of this supply (another word for money income),[5] if the wage rate, or the interest rate, or the rate of investment has a given size? This is the kind of discussions inaugurated by Lord Keynes's discoveries, of which J. R. Hicks said: "The *General Theory of Employment* is a useful book. But it is neither the beginning nor the end of economic dynamics."[6]

It is true that the discussion cannot help stumbling upon dynamic relations. For example, "cumulative processes" are described. Or, to take another example, the relationship between income and consumption is ascribed to a "multiplier principle" working over a hypothetical sequence of undefined "periods," during which sequence of periods the variables converge to certain values called equilibrium values. A third example of rudimentary dynamics is the Robertsonian "day," used by many authors of this volume: an undefined period of time introduced to justify giving different names (savings and investment) to two dated values of what is regarded as one and the same variable. To be sure, a truly dynamic theory will not neglect hypotheses which those authors may have in mind: the hypothesis, for example, that a divergence between two certain quantities leads to processes which increase the divergence (as in the case of "cumulative" processes of Wicksell and his school), or decrease it (as in the case of Mr. Kahn's multiplier theory in which the difference between actual employment and the employment compatible with a given total demand gradually fades out); or the hypothesis that a significant time-lag separates consumption decisions

[5] By "demand" and "supply" we mean the variable quantities demanded or supplied, not the functional relations between each of those variables and other variables such as prices. If the latter terminology were accepted, we should have to replace the simple expressions "demand equals supply," "demand exceeds supply by a given amount," etc., by more cumbersome ones. The relevance of those expressions for dynamic analysis will appear below.

[6] J. R. Hicks, "Mr. Keynes and the Classics; a Suggested Interpretation," *Econometrica*, Vol. 5, No. 2 (Apr., 1937), pp. 147-59. Among the authors included in the present volume, the distinction is recognized by Ellis, 1940 (p. 406); but also by Lerner, 1939 (p. 167), who says: "Mr. Keynes's greatest fault is perhaps his failure to point out with sufficient emphasis that he is in the main concerned with equilibrium analysis." Haberler, 1936, seems to go even further and to accuse Keynes of feeding us not even with statics but with "barren" identities. This is another misunderstanding, and reveals Keynes's second greatest fault, *viz.* (to paraphrase Mr. Lerner), "his failure to point out with sufficient emphasis that he is not concerned with mere accounting": some parts of the *General Theory* (although not as often as does the *Treatise* with its "Fundamental Equations"), do merely state identities; but not all relations of Keynes's theories are identities! See the present author's "Identity and Stability in Economics: A Survey," *Econometrica*, Vol. 10, No. 1 (Jan., 1942), pp. 61-74.

from income changes. But, to apply such hypotheses seriously, the concepts and relations must be stated with greater precision than that given them by the original authors and by most of the interpreters. The present ambiguities are well illustrated by Fritz Machlup, 1939, who lucidly enumerates and classifies the various "periods" confused by various authors. The prevailing carelessness in discussing processes suggests that it is the equilibrium values and not the process of reaching them (nor the question of whether they are reached at all) that has interested most economists, at least after Keynes's book of 1936 was read and digested. This is also shown by Somers's bibliography of "business cycle theory": hardly one-sixth of the listed articles deal with the explanation of business fluctations.[7]

II

Across the distinction between statics and dynamics cuts another one: that between aggregative or "macro"-economics, and the "micro"-economics of a single firm or household. The contributions of the volume are essentially macro-economic. Some contributors (Schumpeter, Mitchell, Williams, Haberler) emphasize the error involved in unduly sweeping aggregation. But this has been so far almost entirely negative criticism. Little has been done to indicate the size of the error under various types of aggregation and, hence, to find the "optimal" extent and method of aggregation; though probably nobody but a purist will deny that *some* aggregation, and hence *some* error, is inevitable because a theory in a million variables can be neither verified nor applied. The relation between "micro"- and "macro"-propositions, *e.g.*, between the individual's and the community's "marginal propensity to consume" (a distinction emphasized by Haberler, p. 198) depends, of course, on the frequency-distributions involved: in this case, on the income-distribution in particular. As another example: Mitchell observes that the changing dispersion of profits has cyclical effects.[8] This suggests that two frequency-moments of profits (dispersion and average) and not only one (average) must be studied. Such studies bridge the gap between "micro"- and "macro"-economics.

There exists, in fact, an awkward gap: that between the theorems which the undergraduate is taught to derive from the rational behavior of single firms and consumers, either in perfect or imperfect markets,

[7] These articles are mostly classified under I: Over-all Discussions and Development of Business-Cycle Theory (54 titles); and II: Dynamic and Econometric Business-Cycle Analysis (65 titles). Of the first group, only 14 were published after 1937; of the second, 36! (See below, Section VII of this review.)

[8] "As prosperity approaches its heights . . . a sharp contrast develops between the business prospects of different enterprises" (p. 56).

and the rather crude and sudden assumptions of the "macro"-discussion on, say, "investments as a whole." How is the formula "investments are high when profits are high" linked with the formula "a firm employs as many machines as would make the value of their marginal product equal to the marginal expense"? (To use the last formula makes investments depend, *inter alia,* on the ratio of machine prices to wage rates.) Or: How is the rise of costs during, but not before, the latter part of the boom (Mitchell, p. 50) connected with the production and cost functions of firms? If such links are not established, the theory of the firm as taught in colleges may degenerate into a "mark of a gentleman's education" like the fencing and archery taught to would-be mandarins. Yet this need not happen: rationality of firms' behavior is probably not a bad first approximation and can be well utilized in realistic analyses of the economy as a whole.

III

To say that the bulk of the volume, or of the discussion it reflects, is on macro-statics does not mean that the book or the discussion is useless. New equilibrium values corresponding to changed conditions, including changed policies, are *sometimes* reached so quickly that useful policy can *sometimes* be performed without paying much attention to the adjustment process. Thus, considerable practical knowledge can be derived from a relatively simple theory.

Unfortunately, the usefulness of macro-statics has been lowered by the crudity of our tools. We are spending too much time on misunderstandings, and we misunderstand each other because we talk carelessly. That our concepts are not unambiguous is well known from the savings-investment controversy (of which the volume contains top specimens in the articles by Ohlin, 1937, Friedrich Lutz, 1938, and Lerner). Had there been more attempts to measure the quantities under discussion economists might have found themselves compelled to more precision. Williams's plea to give a systematic place to "monetary" *versus* "realized" savings—both measurable—is a case in point (although his distinction between "oversaving" and "underinvestment" is again a puzzle). Another case in point is the Robertsonian "day." If it had 24 hours, the difference between the values of any variable taken "yesterday" and "today" would be trifling except on a Black Friday; and it is not too meticulous to ask just how long, approximately, is the lag in question. It is, in fact, the lag of spending habits behind changing incomes that matters: an empirically given amount of time, not an arbitrarily chosen unit of time-measurement.[8a] As an alternative, the

[8a] Mr. Robertson would probably agree with the second, but perhaps not the first, part of this sentence. See his *Essays in Monetary Theory* (London, 1940), p. 83.

theorists may have in mind a relation, with or without time-lag, between a variable and the rate of change, per arbitrary unit of time, of another variable. (Examples of such relations will be given in the next section.)

These doubts of a sympathetic reader are given here merely to suggest that some current concepts and assumptions could well bear a fresh and unambiguous restatement.

The volume contains a well-known article by Oscar Lange, 1939. It expounds the relevant behavior relations (economists' "schedules") with a degree of clarity which other static articles of the volume have attained only in regard to certain accounting identities such as are specified in articles by Ohlin, Lerner, and Lutz. By counting relations of both kinds, it can be seen whether one has really explained what determines the variables (if there are as many of them as there are independent relations); or only given a half-theory, like the half-scissors of Marshall's simile (if the variables are more numerous than independent relations); or, thirdly, whether one has perhaps contradicted oneself (if there are more variables than there are independent relations). People afraid of symbols can describe each relation in words like "consumption depends on income," then count all such sentences and thus reach those rather important results. People who do not despise God's gift of equations can easily get even more interesting results. Hicks (in an article already quoted and similar to Lange's in scope) has used such a static system to study the effect of changing interest rate; one could similarly study the complete effect of (much discussed, rarely clarified) cuts of wage rates.[9]

IV

Yet, even the clearest static theories usually have one misty spot. They assume equilibrium between, say, the supply of and demand for a single commodity; or between the value of all goods produced (another word for national income) and the value of all goods demanded. This implies unchanged inventories. This assumption tempts one to use the same symbols for supply and for demand, neglecting to state the assumption itself as a separate relation. Actually the relation is seldom valid. Under the names of inflationary (or deflationary) gaps we have recently familiarized ourselves with aggregate-demand-supply differences of spectacular dimensions. These differences show up in the depletion (or rise) of inventories and later cause a change in prices and in production.

[9] The technique, known as "differentiating implicit functions" is useful in economics because the functions ("schedules") involved are seldom known except for some general features, like the signs of derivatives. Hicks, *Econometrica,* Vol. 5, p. 157, footnote. See also my article on "Wicksell's Two Interest Rates" (*Social Research,* Vol. 8, No. 4 [Nov., 1941]) for the use of an elementary technique which assumes linear relations.

The existence and the dynamic effects of excess demand or supply were well known to the founders of modern market theory such as Walras and Marshall.[10] To explain the reaching of market equilibrium, they referred to the fact that excess demand (or supply) caused a rise (or fall) in price: a relation between a variable and the rate of change of another variable. Together with the two static relations (demand and supply schedules), this dynamic one constituted the market theory of a single commodity. Three and not two relations are, in fact, necessary to explain the movement (of which the convergence to equilibrium is one possibility) of the three variables, supply, demand, and price. This did not easily fit the two-dimensional blackboards of our classroom and was consequently forgotten. Yet, a market theory consisting of the three propositions "demand depends on price," "supply depends on price," "excess supply makes the price fall," is both clearer and nearer the truth than a market theory in which the third (dynamic) sentence is replaced, without further explanation, by "demand equals supply." Strictly, the latter sentence is only correct if the price falls and the consequent adjustment of demand and supply (hence, of inventories) is infinitely rapid: a special, limiting case. The suppressed and replaced sentence helps to describe just this process of adjustment.

National money income which, for the theory of a single commodity, is taken as an exogenous cause of "shifts of demand schedule," becomes an endogenous variable (*i.e.*, one to be explained) in problems of employment of national resources. National money income is the sum of all money incomes earned, and is therefore another word for the money value of total supply. Again, the equation "total supply = total demand" is only approximately true; quite unlike the equation "total supply = total income," which is an accounting identity. The total demand (for consumption goods *plus* investment goods) is therefore not identically equal to total income. To be sure, no harm arises from thinking otherwise, as long as equilibrium is assumed to have been reached somehow: no different consequences arise from the proposition "supply is assumed to equal demand" than from the proposition "supply is another word for demand." But the confusion shows up as soon as one approaches the facts, the changing inventories, changing prices.[11] One has then to discard the "supply = demand" assumption, and to substitute for it, say, "supply = demand *plus* a random quan-

[10] In his *Principles*, though not in his *Pure Theory of Foreign Trade*, Marshall preferred to study the (dynamic) effects of the difference between demand price and supply price. See P. A. Samuelson, "The Stability of Equilibrium: Comparative Statics and Dynamics," *Econometrica*, Vol. 9, No. 2 (Apr., 1941), especially pp. 102-05.

[11] Macro-theories of unemployed resources often choose to neglect prices and to discuss the deflationary gap in terms of deflation of physical supply only. We have assumed this simplistic attitude in the rest of the paragraph merely for brevity's sake.

tity," the latter quantity being an accidental (and exogenous) failure of producers to adjust inventories; or going further, one may substitute for it a dynamic relation such as "excess supply slows down supply" (possibly including again, in addition, a random quantity). The savings-investment controversy would not have been so tiresome and inconclusive if, at the time of the controversy, the contributors to the volume under review (this includes Messrs. Lutz, Lerner and Lange) had made clear that the proposition "money value of aggregate demand = money value of aggregate supply," far from being an accounting identity, was not even true, except as a limiting case—*viz.*, the case of infinitely quick adjustments—of some more general dynamic statement. Professor Samuelson's dynamic restatement, on somewhat similar lines,[12] of the Keynes-Hicks-Lange system might well have deserved inclusion in the volume and would supplement Ezekiel's discussion of the cobweb, a form of dynamics of single commodity markets. By facing dynamic facts, full understanding is reached of the nature of the static model.

V

In the volume under review, two or three simplified dynamic models (involving an equal number of relations and endogenous variables) and half-models (*e.g.*, a single relation in two or more endogenous variables) are discussed articulately: such are the works of Ezekiel, Samuelson and J. M. Clark. They do not claim to explain the business cycle. Authors who have tried to do so faced a more difficult problem, yet applied more deficient tools. The criticism which Tinbergen in his reprinted article makes of most business-cycle theories applies to his neighbors in the volume: Schumpeter, Mitchell, Hawtrey. Are they not, in Tinbergen's words, "telling stories, not making theory"? The relations they have in mind may be sufficient to explain the cycles, but this is difficult to check because the system of relations is not clearly stated. They may be too numerous, or there may be not enough of them. Even if there are just as many relations as variables, the relations may or may not be able to explain turning points, *i.e.*, periodic movements instead of non-periodical "cumulative processes" or of non-periodical convergence toward equilibrium. The method chosen is to tell how one situation breeds another, and many striking facts are observed and plausibly interpreted from step to step. But the reader, aware of the many simultaneous, entangled threads of economic causation, is left to puzzle why, at any juncture of the story, one particular thread is chosen and not any of the others. One is merely made to feel, with Tony Lumpkins's genteel but vague friend, that there is some "concatenation accordingly."

[12] Samuelson, *Econometrica*, Vol. 9, especially pp. 113 *seq.*

Tinbergen's methodological article does therefore fulfill an important function in the volume. Unfortunately, the article itself does not illustrate Tinbergen's economics. Specific economic relations had to be treated in that article cursorily and formally. It would be useful to acquaint students with Tinbergen's actual hypotheses, and to provoke criticisms. For example, they might ask (as we did above, in Section II) for a fuller use of the results provided by the theory of single firms; or they might suggest getting at the economic causation of some of the trends which Tinbergen imposes from outside—*e.g.*, reduce some trends to the fact that resources or markets approach exhaustion.

VI

As mentioned earlier, empirical tests or measurements appear in the volume rather casually. Kondratieff's statistical-historical article on long waves is an exception. This is an empirical discovery, with little pretense of a theory. The author forcefully rejects exogenous explanations (inventions, wars, new markets, increase of gold stocks are, to him, themselves caused by the economic conditions); but he does not try to give an endogenous one.

The great merit of Tinbergen's approach is, of course, the knitting together of theory and measurements. His tests by fact are indeed necessary since the number of possible, logically watertight theories is infinite. This is not to say that the tests are sufficient: as in all science, we can only narrow down the set of possible hypotheses by rejecting some of them; we can never be sure that we have hit the uniquely true one. But is it not important enough that, for example, Tinbergen (p. 81) has shown the "acceleration principle," so attractive to theorists, to be of doubtful account in actual fact?

Tinbergen estimates, separately for each economic relation, the size of parameters such as "marginal propensities," price-elasticities of demand, time-lags, etc. The size of those parameters makes the system periodic (with wave frequency of plausible size), or otherwise. With the exception of time-lags, the parameters are estimated by the partial regression coefficients (familiar to statistical workers) of the single relations. The student will, however, be misled by Tinbergen's statement, now five years old, that "Various pitfalls in this field have recently been discussed . . . fairly completely . . . it is now more useful to apply the method to concrete cases" (p. 81). Recent researches have shown that estimates of parameters, obtained by separately fitting each of the theoretical equations to the data, are, in general, biased estimates if the data are of non-experimental origin. This is the economist's case. His data are produced by the interplay of simultaneously valid relations. He does not have any controlled variables. Accordingly, other

more general and more suitable methods are being developed;[13] though in certain cases, especially where lags and exogenous variables are involved, the old method may also lead to correct results.

VII

Whether macro- or micro-economics; statics or dynamics; purely hypothetical or empirically tested, no economic theory—however interesting or true—is really useful if it does not help policy. To nip depressions in the bud, is it necessary to know why they arise? We know that a given total demand would guarantee full employment of resources—if not immediately, then after some reasonable time needed for adjustments. Let us, then, keep total demand at the desired level, correcting it upward or downward whenever it slips down or up. This is the policy of the steering wheel.[14] It dispenses with both theories and measurements of business cycles. All that is necessary is to watch current (not past) facts pertinent to employment, and to act quickly. It is not necessary to know the causes of the trouble or of its alleged periodicity. If the room is too hot we open the window though the trouble may have been caused by the radiator, not the window; nor need we ask ourselves whether the room warms up and cools off periodically, and why. To the practical man, this short-cut is precious. It is interesting to note[15] how, since the publication of the *General Theory of Employment* by a statesman-economist, the output of articles on business cycles proper has slowed down. Except for the finishing of a few monuments started before the day of revelation, and excepting the work of harmless econometric drudges, victims of despised "scientism," the professional interest shifted to macro-statics!

It is not too conceited to call this shift a boon to mankind, involving as it did a change in the attitude of administrators and, though much slower, a change in public opinion. Certain tenets of fiscal and monetary policy, rational in their time but mere magic taboos under changed circumstances, are giving place to new rules, appropriate to higher productivity levels. There is disagreement about details only: about the way to circumvent this or that prejudice, or the feasibility of dispelling it; about the distribution of benefits of the policy between the various classes; and about the probability that the steering wheel will have to

[13] See Trygve Haavelmo, "The Statistical Implications of a System of Simultaneous Equations," *Econometrica*, Vol. 11, No. 1 (Jan., 1943). See also the introduction to J. Marschak and W. H. Andrews, "Random Simultaneous Equations and the Theory of Production," *Econometrica*, Vol. 12, Nos. 3 and 4 (July-Oct., 1944), pp. 143-205; and forthcoming articles by Tjalling Koopmans.

[14] A. P. Lerner, "Economics of the Steering Wheel," *University of Kansas City Bulletin*, 1941.

[15] See above footnote 7 for some figures.

be resorted to more often or less often. Robertson's article, 1940, classifies the tastes or fears at the base of those disagreements; articles of Williams, 1941, and of J. M. Clark, 1939, are examples of understanding and weighing the difficulties. The principle itself is, if possible, even more generally accepted now than it was five years ago: witness the current discussion of post-war employment.

We do not think, however, that the general acceptance of the (static) principle of effective demand, and of the steering wheel policies implied in it, makes business cycles theories, economic dynamics useless. Cars must not only be steered, but also repaired and built. A car must not be built to swing wildly and to require exasperated steering at every turn or slope of the road. A system able to absorb or "dampen" external impacts is more "stable" than one whose "damping-ratio" is small (Tinbergen, p. 79). That ratio is a well-defined quantity. (It is, roughly speaking, another way of measuring the speed with which equilibrium is approached.) It depends, of course, on the structural characteristics of the system, *i.e.*, on its parameters such as the various elasticities, lags, reaction velocities, etc. Would a lowering of the elasticity of labor supply (*i.e.*, a higher flexibility of wages) make the system more stable or less stable, and by how much? What effects on the stability of the system have the current regulations on bank reserves? on dealing in securities? on governmental storage of agricultural commodities? These are problems in comparative dynamics, just as the effect of a changed consumption propensity, or of changed government spending, on the equilibrium income, are problems in comparative statics. The latter studies the factors affecting the equilibrium values; the former reveals the factors affecting the speed with which equilibrium values are reached. Both kinds of factors can be instruments of a policy that aims at high and stable income for the nation.

To answer the problems of dynamics, one has to go into the past and learn from previous fluctuations: one has to have business-cycle theories. In addition, one has to study the past even if one merely wants to "steer the wheel": to avoid a drunken course of the car, one has to estimate in advance the presumable effect of various external, or "spontaneous" changes in the structure of production or demand (Neisser, 1934), or the effect of, say, profits on investments. But it is erroneous to think that these relations can be measured in isolation (see end of Section VI). Therefore, even if applied statics should be the only aim, the necessary empirical study of economic relations would imply the study of the dynamic system of the economy as a whole. If, however, in addition to steering the wheel of the system we want the system to have a stable structure, we need the knowledge of what makes systems

stable or sharply fluctuating. Hence, in both cases, theory of business cycles is needed.

VIII

Economic theories are made to explain what determines quantities such as prices, or employment, or interest rates at any given time. Any economic theory therefore involves relations between quantities. If economic policy applies theory it uses these relations: it tries to give some of the quantities, such as the national income, desired value by influencing other, more directly controllable quantities, such as tax rates. A theory involving false relationships cannot help, and may harm, policy. A theory that consists of vaguely stated relationships can help only if the relationships meant were true and, by an accident, happened to be understood as they were meant; or if the relationships meant were false but, by an accident, have been misunderstood in an appropriate way. More useful than to rely on such accidents is to have theories as true as possible, and to formulate them clearly.

To be true, a theory must be logically, or internally, consistent and must not contradict facts. (Although necessary, these conditions are of course not sufficient.) A theory about the determination of quantities can in general be expressed by a system of relations such as equations or inequalities, and the implications of such a system can be studied by rules of mathematics. If, in addition to being internally consistent, a theory about quantities wishes to claim consistency with facts, measurements must be made. In economics, measurements must in general be statistical estimates because numerous factors exist that cannot and need not be identified separately and that combine themselves into "random" influences. Economic propositions (except for definitions or identities) are in general statistical, *i.e.*, they state that certain occurrences are more probable than others. An economic theory is in agreement with facts if it does not assign a high probability to occurrences which, in reality, prove to happen but rarely.[16]

Ill-defined concepts, relations, and systems of relations (called theories) can be more easily extirpated or improved, and the logical consistency and empirical reliability of propositions about quantities are more easily tested if mathematical tools are used. Occidental humanity has developed mathematics for those very purposes.

Economics is far flung and borders on law and ethics, psychology and history, on human biology and on technology. To reason by methods other than mathematical ones and to ascertain facts without sta-

[16] Trygve Haavelmo, "The Probability Approach in Econometrics," *Econometrica*, Vol. 12 (1944), suppl.; also issued as Cowles Commission Paper, New Series, No. 4.

tistics is legitimate or necessary in some of those fields or nearer their borders. Economic theory is not the only and perhaps not the most useful part of economics. Propositions of legal economics about the existing institutions, and statements of sociology or political science as to how institutions change, may be more reliable, and hence more useful, than the essentially quantitative propositions of economic theory and economic statistics about man's probable behavior in matters of supply and demand of goods and services. Nevertheless, propositions of the latter kind have been shown to possess some moderate degree of reliability, and this is why any sort of economic theory can exist at all. Why, then, neglect the tools appropriate to quantitative relations and thus diminish whatever usefulness economic theory may have? There is nothing inhuman about stating that, in given conditions, men behave in moderately persistent ways; there is nothing frivolous in counting men and measuring their ways. True, Providence did punish King David for taking a census: but that was a long time ago.

A giant can do with a hammer the work of a steamhammer. Ricardo and Keynes, using numerical examples and the short-cuts of powerful intuition, have achieved great things; but I doubt that a third name (Menger? Marx?) could be added to these. Marshall probably arrived at, and most certainly tested, his conclusions by mathematics. By hiding his tools in appendices, Marshall bowed to an old belief, a self-deception, I think: that in economics clear reasoning can be replaced by delightfully Ciceronian discourse and that the resulting agreement of minds is due to conviction rather than respect. Robertson's (1938, pp. 315, 312) purpose is "to give an account of events in language as nearly as possible approaching that of *Reading without Tears*." . . . "Latterly several helpful attempts have been made to express precisely in mathematical terms some of the points at issue. Has a stage now been reached when it is possible to sum the whole position up broadly in more ordinary language, indicating in a general way what departments of the whole tangled controversy seem to be primarily concerned with words and methods, and what with more substantial issues? I do not know, but I should like . . . to make the attempt."

As one who has perused *Readings in Business Cycle Theory* I must confess: this was not *reading without tears*. It was strenuous reading. If we study economics to remember the names of authors, their characteristic terms and phrases, conflicts and misunderstandings, and perhaps the social and psychological setting of those conflicts, a volume like the present one is both pleasant and useful: an admirable art gallery. But if economics is not about economists and their words and feelings but about how to explain or influence facts, then to extract economic knowledge from the articles of the volume is a most difficult

task. A giant's disciple says (Lerner, p. 164): "Mr. Keynes' presentation [of the multiplier concept] cannot escape the suspicion of the lack of clarity." In the course of our present article we had cause to complain similarly of other authors. To read about triangles yet shed no tears, give us Euclid, not Cicero.

Precise language would make reading and writing slower, no doubt. Yet in the long run time would be saved. Do we not (and our students) read and write too hastily, anyhow? Do we not, just because of that haste, read and write too much? Economists praise the fruits of patience: the bee in the seal of the Royal Economic Society is there to buzz the glory of "roundabout processes." Even non-economists know that to get along in England or in the United States it pays to learn some modest English. Our students begin to realize that, to master quantitative relationships that make up economic theory, it pays to learn some modest mathematics. The econometricians may not have been such harmless drudges after all.

The *Readings* reflect excellently the discussion of the last twenty years. The discussion was moved by momentous events and has achieved important results. The results were obtained by intuition rather than clear thought. The problems still unsolved are naturally the more complicated ones. Nevertheless, no better tools may perhaps be needed for their solution if—but only if!—the coming generation again produces a genius of intuition. But what if it does not?

COMMUNICATIONS

Three Methods of Expansion through Fiscal Policy

Fiscal policy has increasingly, in recent years, become the central topic whenever a full-employment program is under discussion. This, everyone admits, does not mean that wage, price and other policies can be neglected if we expect to achieve a well functioning economy. It does mean, however, that there is growing agreement that far more emphasis must be placed on fiscal policy than has been the case in the past.

But fiscal policy, as one important weapon in the full-employment arsenal, can be pursued in various ways. I have frequently pointed out that government outlays may be income generating (a) when financed by progressive income taxes,[1] and (b) when loan-financed. I have also argued that even when expenditures are financed by regressive taxes they may be income generating.[2] Recently this analysis has been elaborated by several writers.[3]

To illustrate the effect of different combinations of public expenditures, taxation and borrowing upon the process of income generation, I have for some time in my classes used illustrative diagrams. The description of these diagrams, which may be of some interest to others as a pedagogical device, is presented in this note.

The models which follow are highly simplified. They are presented purely for purposes of analyzing broad tendencies resulting from different lines of action. It must not be assumed, however, that I therefore take account only of aggregates and give no consideration, for example, to the effect of different *kinds* of spending and other equally relevant matters. I am here contrasting general policies, but am nevertheless quite aware that much more needs to be said before one could decide upon the validity of any one specific program designed to bring about expansion.

The net national product (in this note called national income) of goods and services (gross national product minus capital depreciation, etc.) equals (1) private consumption expenditures; (2) tax-financed public expenditures and (3) net savings of corporations and individuals. Figure 1 presents a model showing the schedule of total private consumption and total private savings at different income levels together with the tax-financed public expenditures. Let us suppose that we start with an income of *OL*. Given the tax structure

[1] *Fiscal Policy and Business Cycles* (1941), pp. 182-83.

[2] Hansen and Perloff, *State and Local Finance in the National Economy* (1944), pp. 244-46.

[3] See especially Sir William Beveridge, *Full Employment in a Free Society* (1945); and Henry C. Wallich, "Income-Generating Effects of a Balanced Budget," *Quart. Jour. Econ.*, Vol. LIX, No. 1 (Nov., 1944), pp. 78-91.

and the consumption and savings functions,[4] the level of income is determined by the volume of net investment. Accordingly a net income level of *OL* would be reached if the volume of net investment were only *EF*. Suppose now private investment becomes *AV*, and in addition loan-financed government expenditures equal to *VB* are undertaken. Then total investment rises to *AB* and income (via the operation of the multiplier) increases to *OK*. As total investment rises from *EF* to *AB*, consumption is increased; and moreover (under a progressive tax structure) as income rises, tax-financed outlays

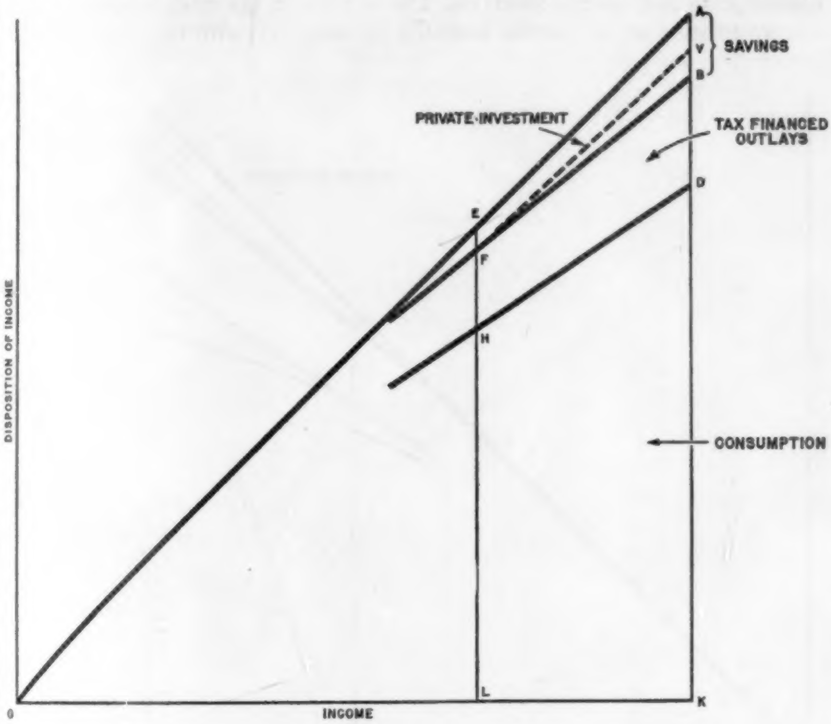

FIG. 1

could rise from *FH* to *BD*. This is, broadly conceived, the path of expansion when loan-financed outlays are relied upon to bring about an increase in income and employment.

In Figure 2, it is assumed (starting again from an income level measured by *OL*) that expansion is brought about not by an increase in loan expenditures, but by a very large increase in tax-financed expenditures.[5] This means

[4] By a given consumption function I mean a schedule showing the amounts of total private consumption at different levels of national income; and similarly for the savings function.

[5] The increased taxes cannot be collected, however, until national income has risen. Thus initially the increased expenditures must be loan-financed. See note 6 below.

that tax rates are raised sharply. In Figure 1 the volume of public outlays that could be tax-financed increased somewhat, even though tax rates were left unchanged. Such increase was due exclusively to the fact that, with constant tax rates, revenues would increase some as income rose. In Figure 2, however, it is assumed that outlays are raised substantially, while at the same time tax *rates* are raised sufficiently to produce tax revenues adequate to balance the new enlarged budget at the income level OK.

The large increase in tax rates can not fail to change the structure of the consumption and savings functions. The increase in tax rates induces a decline in consumption at the income level OK as compared with the consumption in

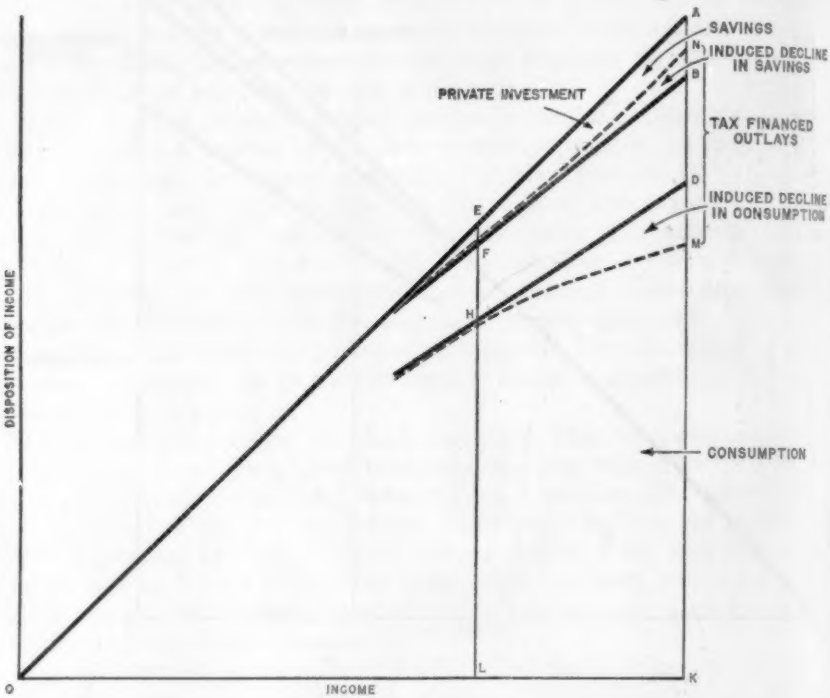

FIG. 2

Figure 1 where the tax rates were lower. If the change in the tax structure is such that funds are abstracted from the general mass of consumers, the induced decline in consumption will be very great. If, however, the change in the tax structure hits mainly the upper income classes, then it is the savings function which is sharply distorted as compared with that of Figure 1, while the consumption function will be left relatively undisturbed. In this case the induced decline in savings would be very great, while the induced decline in consumption would be slight. In Figure 2 it is assumed that the change in the tax structure cuts both ways, reducing both savings and consumption as income

is pushed up by larger public outlays. Thus at full employment, consumption is KM, savings NA, tax-financed public outlays MN.

In Figure 1, it was assumed that the expansion was brought about by increased public outlays financed by loans. The savings and consumption functions were therefore left undisturbed (there being no changes in tax rates). Thus both consumption and savings rose rapidly as income increased. In Figure 2, however, the increased tax *rates* necessary to balance the enlarged government budget sharply change both the consumption and savings functions.

Figure 3 illustrates a third case. Again starting from income equal to OL when net investment is EF, expansion is achieved in this case by a drastic reduction in taxation, public outlays remaining the same as before.

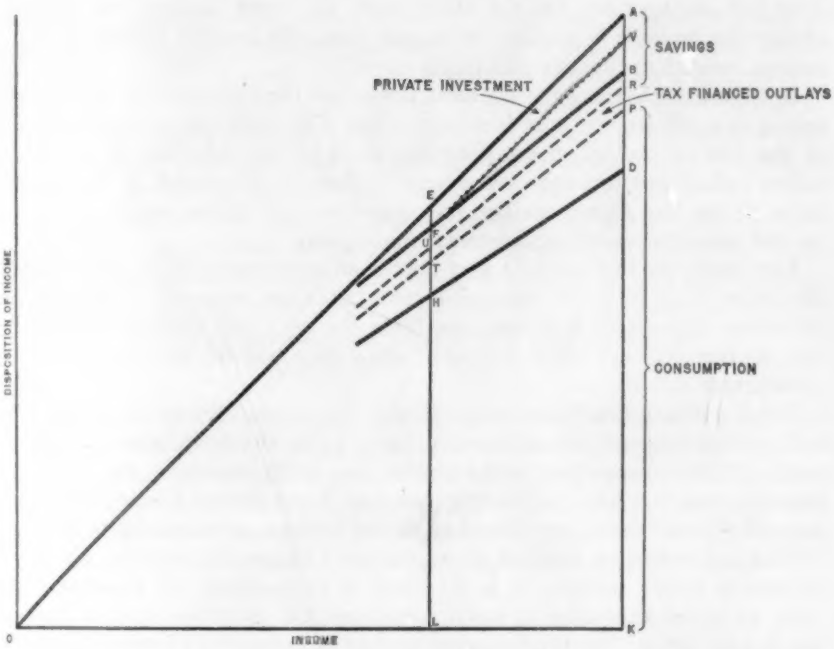

FIG. 3

The assumed drastic cut in tax rates releases funds for consumption and savings. Private consumption expenditures are increased. Moreover, a large government deficit is created which is financed at first partly from enlarged savings and partly from new funds or the use of idle funds. Total expenditures, public and private, thus increase and income rises to OK. At the income level OK private consumption is KP. The savings (AR) are offset by private investment (AV) and the government deficit. The latter equals VR. A small part of government outlays (RP) is assumed to be still tax-financed. Consumption and savings, by reason of the tax reduction, are much larger than in Figure 1.

The savings and consumption functions have been shifted substantially away from their original patterns, as indicated by the dotted lines.

In Figure 2 the government budget is balanced (once equilibrium is reached) at all income levels.[6] Income is pushed higher by increased public outlays. As income rises consumption (according to the chart) will rise some, but not as rapidly as in Figure 1. Savings also will rise slightly, but far less than in Figure 1. Thus, at income *OK*, savings are far below that of the corresponding income level in Figure 1. A slight rise in private investment, induced perhaps by the rise in income, is now adequate to offset the savings which the public wishes to make (in view of the new tax structure) at income *OK*.

The more the new tax structure checks the rise in consumption as income is pushed up, the larger is the volume of public expenditures needed to produce full employment. On the other hand, the more the new tax structure checks the increase in savings, as income rises, the less the volume of public outlays needed to produce full employment.[7]

In Figure 3, the more the tax reduction raises the consumption function, the sooner is a full-employment income reached. The more the reduced taxes add to the flow of savings, the smaller the effect of tax reduction on expansion, unless indeed induced new investment is thereby stimulated. If the reduced taxes all run into higher savings, no expansion could follow except in so far as the tax reduction might also increase investment.

Low taxes (as in Figure 3) give maximum encouragement to consumption, the more so if it is the regressive taxes that are reduced. And while tax reduction (especially if progressive taxes are cut) will increase savings, the new savings will not "run to waste" since they will be used to finance the government deficit.

Large public expenditures coupled with high taxes (Figure 2) would do as well as loan-financed expenditures (Figure 1) in the stimulation of employment and the enlargement of the income flow if the new taxes did not curtail consumption. But this is scarcely possible. Loan-financed expenditures are accordingly more effective since they do not infringe on consumption.

The tax reduction method of expansion (Figure 3) involves the lowest volume of public outlays. It is therefore to be preferred by those who fear most an undue expansion of public functions. On the other hand, it involves the largest deficit. The tax-financing method of expansion (Figure 2) involves the largest public outlays but no deficit. The loan-financing method (Figure

[6] As income rises, *MV* (*V* meaning income velocity) must rise. Thus there will be an increase either in *M* or in *V*. Under certain circumstances, in order to provide adequate liquidity, to satisfy both the transactions motive and the speculative motive, *M* should be increased. Thus initially, as outlays are increased, credit expansion (borrowing from banks) is indicated. If there is ample liquidity so that there is no need to increase *M*, idle funds could be tapped (*V* would rise) to finance the initial outlay. Thereafter the enlarged government budget would be financed from taxes. (See *State and Local Finance in the National Economy*, p. 245.)

[7] The effect of the new taxes upon investment must of course also be taken into account. Against this unfavorable effect one must set the stimulation to investment springing from the rise in income.

1) lies in between and avoids both the extremes of excessively large expenditures and excessive deficits.

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Alternative Budget Policies for Full Employment

During the thirties fiscal theorists were interested primarily in the effects of deficit spending, that is, changes in over-all income resulting from an *increase in public expenditures* above the level of tax yields. Recently, attention has been drawn to an alternative approach to deficit finance under which the deficit is brought about by a *reduction of tax yields* below the level of expenditures. Both techniques may be considered at the same time and be combined with other approaches not directly concerned wth the size of the deficit. The level of private consumption and investment expenditures may also be affected by adjusting the *kind* of taxes and public expenditures included in the budget totals, and under certain conditions public expenditures may provide for a net addition to national income, even though there is no deficit and the level of private expenditures does not increase.

Adjusting the level of expenditures relative to tax yields is thus only one among several approaches. If fiscal policy is to provide for a given dollar addition to the national income, this may be accomplished through a number of alternative budgets, providing for varying tax, expenditure and deficit totals and for varying revenue and expenditure structures.[1]

I

The interrelationships between the major variables of budget policy may be presented in a simplified form, somewhat similar in nature to the statement of monetary variables in the equation of exchange. Suppose that with a given federal budget over-all income falls substantially short of the potential output at full employment. What adjustment in the budget can be made to raise income to the full employment level? Any adjustment in the budget will do which meets the condition

$$G = E_1 + k\,[\alpha\,(E_1 + E_2) - \beta T] + kI \qquad (1)$$

where

G is the required increase in income

E_1 is the *additional* public expenditure on currently produced goods and services

[1] See for instance Alvin Hansen, *Fiscal Policy and Business Cycles* (Norton, New York, 1941), pp. 182-83, and Hansen and Perloff, *State and Local Finance* (Norton & Co., New York, 1944), pp. 244-46; A. P. Lerner, "Functional Finance," *Social Research*, Vol. 10, No. 1 (Feb., 1943). H. C. Wallich, "Income Generating Effects of a Balanced Budget," *Quart. Jour. Econ.*, Vol. LIX, No. 1 (Nov., 1944); N. Kaldor, "Quantitative Aspects of the Full Employment Problem in Britain," Appendix C in *Full Employment in a Free Society*, by Sir William Beveridge (London, Allen and Unwin, 1944); and B. Ruml, *National Fiscal Policy and the Two Super Budgets* (University of Virginia, Charlottesville, 1941).

E_2 is the *additional* public transfer expenditure
T is the *change* in tax revenue (+ or −)
α is the marginal propensity to consume (out of income after tax) of the recipients of additional government expenditures
β is the marginal propensity to consume (out of income after tax) of the taxpayers meeting the changed tax bill
I is the induced change in private investment expenditures (+ or −)
k is the multiplier applicable to an extra dollar of private expenditures on consumption or investment, based upon the community's marginal propensity to consume out of income after tax and independent of a given tax rate

Expression (1) shows that, for the budget adjustment to be successful, the required increase in income must be matched by the proposed increase in public expenditures on currently produced goods and services plus the resulting net increase in private consumption and investment expenditures. These variables will be examined briefly.

The *required increase in income,* or G, is the gap between the income which is realized "in absence" of an active fiscal policy—defined, for purposes of this discussion, as a situation where the budget is balanced at a minimum level—and the income that can be reached at full employment. For the gap to be filled without a change in public expenditures or tax yields (allowing, however, for reduced tax rates), there would have to be an autonomous increase in private investment or consumption by an amount equal to G/k.

The *increase in public expenditures on currently produced goods and services* or E_1 is the first leverage factor. E_1 is here written as a separate term, distinct from E_2, because real expenditures on currently produced goods and services are in themselves a direct addition to national income. Transfer expenditures make no such direct addition; they enter into national income only when respent by private income recipients.[2]

An increase in public expenditures on currently produced goods and services will thus result in a *net* addition to over-all income unless offset by reduced private expenditures. Suppose the government spends $100,000 on a soil conservation project and increases taxes to cover the cost. The national income will then be increased by public expenditures of $100,000. Now suppose that those paying $100,000 of additional taxes reduce their consumption expenditures by $50,000 while those receiving $100,000 of additional income payments from the government increase theirs by $50,000. As a result, the level of private consumption expenditures is unchanged. Assuming private investment to be unchanged, the $100,000 worth of soil conservation is a net addition to national income.[3] For private consumption expenditures to

[2] Pigou defines as "exhaustive" or real expenditures those expenditure items which involve surrender of real resources and are made to secure the production of goods and services. Placed on a current basis, this definition meets our requirements although there are numerous border-line cases. See A. Pigou, *A Study in Public Finance* (Macmillan, 1929), p. 19.

[3] This, of course, involves the assumption that public projects, valued at cost, can be added on to privately produced goods, valued at market price. For present purposes this assumption is accepted.

remain unchanged, in this illustration, there must be no lag between the public outlay on the conservation project, the reduction in the taxpayer's consumption expenditures and the increase in consumption expenditures of the project workers; that is to say, there must be an increase in income velocity. If there is a lag in the public disbursement of the additional tax yield or in the respending of the additional income received by the project workers, the direct contribution of the real public expenditure may be offset in part or fully by reduced private expenditures, measured in the second term of expression (1). If such lags apply, this result may be avoided if the initial public outlay is financed out of credit or taxes drawn from idle balances. For purposes of present analysis, we assume that no lag exists.[4]

The *increase in private consumption expenditures,* resulting from adjustments in public expenditures and taxes is the second leverage factor. The total increase is equal to k times the initial net increase. The initial net increase, in turn, equals the initial increase in expenditures by those receiving additional income from the government minus (or plus) the initial decrease (or increase) in expenditures of those paying additional (or reduced) taxes. The initial increase in expenditures by those receiving additional government payments is defined as $(E_1 + E_2)$, *i.e.,* the marginal propensity to consume (α) of those receiving the additional payments, times the total increase in public expenditures, including transfer as well as real expenditures. The initial decrease (increase) in expenditures of taxpayers is defined as $\pm\beta T$, *i.e.,* the marginal propensity to consume (β) of those who meet an increased (decreased) tax bill, times the *change* in tax yield, $\pm T$.

It is a major point of this analysis that E_1, the initial public expenditure on current produced goods and services, is singled out as the first term, while the multiplicand to which k is applied is defined to include the initial increase in *private* expenditures only.[5] This permits us to differentiate between the marginal propensity to consume of income recipients in the economy at large, which underlies k, and the marginal propensity to consume of those who receive additional income from the government (α), or of those who meet a changed tax bill (β).[6] This is of considerable advantage. During a depression period, for instance, fiscal planning calls for taxes which are drawn from taxpayers whose marginal propensity to consume is low relative to that of income recipients as a whole, and for expenditures going to recipients whose propensity to consume is high relative to that of the community as a whole. The opposite tends to hold during a period of inflation. If the specific propensities of taxpayers and expenditure recipients are not allowed for, *i.e.,*

[4] *Cf.* H. C. Wallich, ***Quart. Jour. Econ.,*** Vol. LIX, No. 1, p. 81.

[5] No double counting is involved by including E_1 as a separate first term, because the multiplicand to which k is applied in the second term includes only such fraction (α) of $(E_1 + E_2)$ as is initially respent.

Alternatively, E_1 might be omitted as a separate term, in which case k would apply to $(E_1 + E_2)$ as a whole and E_2 would be deducted in the first round.

[6] As pointed out below, α and β also differ from the community's propensity to consume upon which k depends in that they refer to consumption of particular groups, whereas the latter refers to consumption of the community at large.

the marginal propensity to consume of all groups is assumed to be the same, the number of variables is reduced.[7] However, this simplified formulation of the problem is not very useful for our purpose since it implies the assumption that resulting changes in consumption expenditures are independent of the *type* of public expenditure or tax adjustment. Only changes in revenue or expenditure totals are accounted for and thereby an important part of the problem is assumed away.[8]

The marginal propensities to consume of those receiving additional income from the government (α) or of those meeting a changed tax bill (β) are weighted averages. They greatly depend upon the kind of policy by which adjustments in the expenditure or yield levels are brought about. The α applicable to transfer expenditures may exceed or fall short of the α for real expenditures. Thus, if the additional expenditures are relief payments, α may be close to one; if they are for debt redemption, α may be close to zero. If the expenditures qualify for inclusion in E_1, it is likely that α will fall somewhere in between these extremes. Similarly, if the change in tax yield is in sales tax yield, β may be close to one; if the estate tax yield is involved, β may be close to zero. The β applicable to the corporation tax depends upon its incidence. To the extent that the tax is reflected in higher prices or lower wages, β will be relatively high; to the extent that the tax is reflected in reduced dividends, β will be less, and where the tax is reflected in the retention of less earnings, β will be equal to zero. By defining the revenue item as $\pm\beta T$, the implicit assumption is made that the β applicable to borrowing is equal to zero. This assumption is not entirely realistic, even for the case of depression borrowing, but is made to simplify the problem.

The *change in tax yield,* or $\pm T$, includes all changes in yield, whether due to changes in the tax base (brought about by increased consumption, investment and public expenditures) or to changes in tax rates. When government expenditures $(E_1 + E_2)$ increase and the tax rate remains unchanged, T will be positive since a part of the additional income received from the government will be returned to the Treasury in taxes. Having defined T in this way, α is defined as the marginal propensity to consume out of income *after* tax but

[7] We have in this case $\alpha = \beta = \dfrac{\gamma}{1 - t}$, where γ is the community's marginal propensity to consume before tax and t is the marginal tax rate. In this case $k = \dfrac{1}{1 - \alpha\ (1 - t)}$ and expression (1) reduces to:

$$G = \frac{E_1 + \alpha\ (E_2 + E_1\ t - T) + I}{1 - \alpha\ (1 - t)}$$

For a discussion of the relationship between multiplier and tax rate, see Paul A. Samuelson, "Fiscal Policy and Income Determination," *Quart. Jour. Econ.*, Vol. LXI, No. 4 (Aug., 1942), p. 584.

[8] Ideally, we should apply different *multipliers* to $E_1 + E_2$ and T respectively, instead of assuming different marginal propensities to consume in the first round of private spending, while applying the general multiplier thereafter. But this is impracticable. Within the limitations of any multiplier analysis based upon the marginal propensity to consume of the community as a whole, the formula should give a reasonably good approximation.

is applied to $(E_1 + E_2)$, the full initial addition to private income, *before* allowing for additional taxes. In other words, with respect to the term $\alpha\ (E_1 + E_2)$ it is assumed that no additional taxes are paid by the recipients of the additional government payments. The fact that additional taxes are paid by this group and that the net increase in their expenditures falls short of $\alpha\ (E_1 + E_2)$ is allowed for in deducting βT, where T covers all additional tax yield.

Changes in tax yield are here considered the primary planning factor, the necessary changes in tax rates being determined by the changes in yield and income. The opposite approach could be taken but would be less useful.[9] As a matter of fiscal planning, yield adjustments are the primary objective and changes in tax rates the means to accomplish them. In planning rate adjustments to bring about the desired change in yield, secondary changes in yield due to changes in the level of income and hence in the tax base must not be neglected. As a matter of legislation, action is taken in terms of rate adjustment but the final purpose is adjustment of tax yields.

The change in yield, or T, may be positive or negative, depending on whether the yield provided for in the adjusted budget falls above or below the initially assumed level. T is equal to zero if the yield level is unchanged. It should be noted that $\pm T$ refers to increments or decrements in tax yield only, so that βT does not allow for changes in private expenditures brought about by changing the sources from which the initially assumed amount of tax yield is drawn, as, for instance, by changing from excise to income taxes.[10]

The *multiplier* k is here applied to initial changes in private expenditures on consumption or investment. It is based on the marginal propensity to consume of the community at large, not on α or β which reflect the consumption habits of certain groups only. Usually, k is based on the community's marginal propensity to consume out of income *before* tax and thus allows for leakages from additional tax payments, in this paper it is based on consumption out of income *after* tax. Since the multiplier is based on the community's marginal propensity to consume out of income after tax, k will remain constant when tax rates fall and fall when tax rates rise. This avoids considerable difficulties which can only be mentioned here. If, for instance, expenditures are increased to sustain a higher level of income and the tax *rate* is held constant, the initial increase in expenditures must be sufficiently high to allow

[9] An alternative approach would be to define α as the propensity to consume out of income before tax and T as such addition to tax yield as results from an autonomous increase in tax rates only, excluding such additional yield as results from an increase in the tax base. The net result, in terms of the addition to total income, would be the same for both approaches.

[10] The lower the initially assumed yield level, the less serious is this defect. At the cost of some complication it may be remedied by adding another term to expression (1).

The difficulty might be avoided by redefining G to be the deficiency in income on the assumption of a zero (rather than a balanced minimum) budget. This would have the advantage of making T identical with the over-all yield level, so that changes in the β for the total tax yield would be accounted for. But this would be more than offset by the disadvantages of this approach, in particular (a) it would pose the altogether unrealistic problem of having to estimate G for the assumption of zero public expenditures and (b) it would exclude the analysis of budget adjustments involving a reduction in tax yield.

for the fact that tax yields will be increased at the higher level of income and the deficit be smaller. This is allowed for in our formulation of the problem where the deduction from βT will be positive. If, instead, the tax *yield* is held constant, this leakage will not be present and T will be equal to zero. However, the implied reduction in tax rates means that the marginal propensity to consume out of income before tax payments will be larger at the higher level of income. Under our definition k remains unaffected by such changes.

The final leverage factor is kI, the change in private expenditures on investment and consumption due to $\pm I$, the *induced change in private investment*. It is not related to changes in E_1, E_2 or T in any simple multiplier fashion as is the case for consumption expenditures. Specifically, I is defined to include both such changes in investment as may accompany *any* over-all increase in income, brought about by fiscal or other policies, and such changes as may result from the impact of quite *specific* revenue or expenditure policies. If fiscal policy can be successful in assuring a high and stable level of income, this very assurance will undoubtedly contribute to a higher level of private investment. Also, private investment may be stimulated directly through developmental programs such as power development, urban redevelopment and so forth. Well-selected reductions in tax rates may give further incentives to private investment. On the other hand, higher tax rates, public expenditures which compete with private enterprise and psychological repercussions of an increased budget or of a rising debt may work in the opposite direction.

II

The interrelationship between the contribution of the budget to over-all income and the major variables of budget policy may now be illustrated with reference to hypothetical post-war magnitudes. The quantitative results, of course, are illustrative relationships, not forecasts or policy data. Like the equation of change, our formula presents questions rather than answers, but it may serve as a "table of contents" for some functional relationships involved.

For purposes of these illustrations the familiar concept of gross national product may be used as the over-all measure of income, even though theoretically the net product would be the better concept. The gross national product for the year 1950 is widely estimated at about 200 billion dollars under conditions of full employment. Now suppose that the outlook at the close of 1949 indicates a prospective gross national product of 170 or 180 billions only, both estimates being based on the assumption that the federal budget is balanced at a level of 10 billions.[11] This exceedingly low initial budget level

[11] The underlying situation might be as follows:

Given a balanced federal budget of 10 billion dollars and a similar budget for state and local governments, consumers' expenditures corresponding to a gross national product of 200 billions might amount to 142 billions. With real public expenditures of 17 billions, the remaining quota for private investment would be 41 billions. Assuming housing expenditures of 4 billions, growth in inventory of 2 billions, net exports of 2 billions, business replacement expenditures of 8 billions and net business investment of 10 billions, a deficiency of 15 billions would remain. With net business investment of 15 billions, the deficiency would be 10 billion dollars.

is assumed for analytical reasons, not because it is felt that expenditures could or should be reduced that far. Under such conditions, what adjustments in the budget can be made that will raise total income by 30 or 20 billions for the two assumptions respectively?

In answering this question, attention will be concentrated on three variables: the size of the budget, the size of the deficit and the consumption impact of the tax structure. First we shall consider the required level of public expenditures if given amounts of deficit are incurred and then the required size of the deficit if public expenditures are at given levels. In both cases the results will be observed for varying values of β.

Size of Required Budget as a Function of the Deficit and Tax Structure

It will be convenient to make certain substitutions in expression (1) as follows: E, the total increase in expenditures may be written for $(E_1 + E_2)$; rE may be written for E_1, where r is the fraction of additional budget expenditures in the form of real expenditures; E minus D may be written for T, where D is the deficit. Because the effects of specific revenue and expenditure policies upon private investment cannot be appraised without a much more detailed analysis, they will be neglected in the following illustrations *and the term kI in expression* (1) *will be omitted.*[12] Specific investment effects will be reconsidered in the concluding paragraphs. Solving expression (1) for E, we have

$$E = \frac{G - k\beta D}{r + k(\alpha - \beta)}. \tag{2}$$

To concentrate on the more important variables, let us assume constant values for r, k and α. Values of .75 for r, 2 for k, and .70 for α may be reasonable.[13] Substituting in (2) for the larger of the two gap assumptions, *i.e.*, for a gap of 30 billions, we have

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Assuming a multiplier of 2, the gross product would settle at 170 or at 180 billions respectively. Consumers' expenditures might then be at about 127 or 137 billions respectively, the remainder in both cases being 17 billions of public real expenditures and 26 billions of investment. This disregards a further fall in income due to reduced private investment.

If investment declines with the level of income, as it most likely will, the gap between realized and full-employment income might be much above the 30 or 20 billions here assumed, but similarly, when the level of over-all income was raised through an appropriate fiscal policy, there would be a corresponding increase in private investment and income and, in choosing 30 and 20 billions as our gap illustrations, this *"income-induced"* effect on investment (as distinct from investment effects caused by specific revenue or expenditure measures), *has been omitted.* If it is assumed that the "income-induced" drop in investment as income falls is the same as the "income-induced" rise in investment as income increases, the autonomous increase in expenditures needed to close the gap may be estimated correctly while neglecting the "income-induced" changes in investment in both directions.

[12] While the investment effects of *specific* revenue or expenditure measures are thus not covered, our definition of the initial income deficiency implicitly allows for "income-induced" changes in investment. (See the preceding note 11.)

[13] The community's marginal propensity to consume out of individual income after tax

$$E = \frac{30 - 2\beta D}{2.15 - 2\beta}. \tag{3}$$

To obtain total budget expenditures, the initially prevailing expenditure amount of 10 billion dollars is added to E; if E is equal to zero, total expenditures are equal to 10 billions. Similarly, if the level of tax yield, or $E + 10 - D$ falls below 10 billions, tax yields are reduced from their initial 10-billion level.

TABLE I.—REQUIRED SIZE OF BUDGET UNDER ALTERNATIVE FISCAL POLICIES[a]
(In billion dollars)

β[b]	Deficit—billion dollars												
	0	1	3	5	7	9.3	10	13	13.9	15	16	18	20
	G=$30 billion[c]												
0	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
.2	27.1	26.9	26.5	26.0	25.5	25.0	24.9	24.2	23.9	23.7	23.5	23.0	22.6
.4	32.2	31.6	30.4	29.3	28.1	26.7	26.3	24.5	23.9	23.3	22.7	25.6	20.3
.5	36.1	35.2	33.5	31.7	30.0	28.0	27.4	24.8	23.9	23.0	22.2	24.0	—
.6	41.6	40.3	37.8	35.3	32.7	29.8	29.0	25.1	23.9	22.6	21.4	18.8	—
.7	50.0	48.1	44.4	40.7	36.9	32.6	31.3	25.7	23.9	22.0	20.1	—	—
.9	95.7	90.6	80.3	70.0	59.2	47.9	44.3	28.9	23.9	18.6	—	—	—
	G=$20 billion[c]												
0	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	—
.2	21.4	21.2	20.7	20.3	19.8	19.3	19.1	18.5	18.3	18.0	17.7	—	—
.4	24.8	24.2	23.0	21.9	20.7	19.3	18.9	17.1	16.6	15.9	—	—	—
.5	27.4	26.5	24.8	23.0	21.3	19.3	18.7	16.1	15.3	—	—	—	—
.6	31.0	29.8	27.3	24.7	22.2	19.3	18.4	14.6	13.5	—	—	—	—
.7	36.7	34.8	31.1	27.3	23.6	19.3	18.0	—	—	—	—	—	—
.9	67.1	62.6	51.7	41.4	31.1	19.3	15.7	—	—	—	—	—	—

[a] Effects of *specific* revenue and expenditure policies on private investment are disregarded.
[b] Fraction of marginal tax dollar reflected in reduced consumption expenditures.
[c] Deficiency in income if budget were balanced at 10 billion dollars.

Proceeding from these assumptions, Table I shows the size of the budget total required to raise over-all income by the deficiency G if selected values of D and β apply. For each combination in the table, the required increase in expenditures (E) is obtained by deducting 10 billion dollars from the

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is assumed at 4/5. Allowing for such factors as changes in corporate savings and in transfer expenditures, this might make for a multiplier estimating very conservatively of 2. The α for public real expenditures is assumed at 2/3, that is, somewhat below the 4/5 applicable to *individual* income after tax, since allowance must be made for such factors as corporate savings and changes in transfer payments. The α for transfer expenditures is assumed at .8. If r is assumed at .75 this gives a weighted average for the combined α of .7. As noted before, this simplified analysis does not allow for the fact that k varies with implicit changes in the tax rate.

budget total. The required change in tax yield (T) is obtained by deducting 10 billions from the yield total, *i.e.*, from the total budget minus the deficit. The results are shown for values of G equal to 30 and 20 billions. The table is to be read like a mileage chart. It shows, for instance, that with a deficit of 5 billions and a β equal to .6, an increase in expenditures from 10 to 35.3 billions would be required under the 30-billion gap assumption.

Moving *down* each column, Table I shows that, for low levels of deficit, the required budget will be the larger the higher the value of β, whereas for high levels of deficit the opposite is the case. At the deficit level of 13.9 billions for the 30-billion gap assumption (9.3 billions for the 20-billion gap assumption), the size of the required budget will be the same for all values of β. This must be the case because at that point E is equal to D so that T or $E-D$ is equal to zero.[14] Since the tax yield remains unchanged, the value of β does not matter. If the deficit falls short of 13.9 billion dollars, it appears that $E-D$ is positive, *i.e.*, tax yield must be increased above the initial level because required expenditures are relatively high and the deficit is relatively small. If the deficit exceeds this figure, $E-D$ is negative, *i.e.*, the tax yield can be reduced from the initial level because required expenditures are relatively low and the deficit is large. While the change in yield is upward, the budget must of course be the larger the heavier the pressure of the additional taxes on consumption. If a reduction in tax yield occurs, this will be the more stimulating and hence the budget may be smaller the heavier the prior burden of the tax yield upon consumption.

Moving down the deficit columns, the required budget figure ($E + 10$) is carried to the point at which the size of the budget falls to the level of the corresponding deficit. Combinations which would require a smaller budget are not very meaningful and are indicated in Table I by dashes.[15]

Moving *across* each row, Table I shows how the required budget will be the smaller, for any positive value of β, the larger the deficit. If β is equal to zero, the required size of the budget will be the same for all values of D since there will be no difference between tax and deficit finance. More-

[14] With T equal to zero (and neglecting kI), expression (1) becomes $G = rE + k\alpha E$. Substituting $G = 30$, we obtain $E = 13.9$. Adding the initial expenditures of 10, we have total expenditures of 23.9. Deducting initial taxes of 10, we have $D = E = 13.9$. Similarly, for $G = 20$ we have $D = E = 9.3$.

[15] Given any level of deficit, the limiting value for β is that for which the entire budget can be deficit financed. Thus with a deficit of 16 billion dollars for instance, the limiting value for β may be found by substituting $E + 10 = 16$ in expression (3). We then obtain

$$6 = \frac{30 - 32\beta}{.75 + 1.4 - 2\beta} \quad \text{or} \quad \beta = .855.$$

For smaller values of β and a deficit of 16 billions, hoarding of deficit-financed funds would be required to avoid inflation.

The relationship between E and β for $D = 16$ is determined by

$$E = \frac{30 - 32\beta}{2.15 - 2\beta}$$

for values of $\beta > .855$.

over, if β is equal to zero, the required budget level will be the same as in the preceding case where the budget level was the same for all values of β.[16] By increasing D for the higher values of β we again reach a point at which the entire budget is deficit financed and beyond which a further increase in the deficit would be meaningless.[17]

Table I, obviously, does not provide us with ready-made prescriptions for post-war budget policy. A number of arbitrary assumptions are involved and, most important, effects of specific tax and expenditure policies upon private investment are neglected.[18] It will be of some interest, however, to consider what ranges of Table I may be relevant and what, if any, significance the results may have for post-war fiscal policy.

The value of β will undoubtedly depend upon the amount of tax yield relative to the level of income. If the tax yield were very small, say 5 billion dollars out of a gross national product of 200 billions, β might be held to a very low level; a very substantial part of the tax yield might be obtained out of middle to high bracket income taxes. But if the tax yield were to be larger, say 10 or 15 billions, this would be more difficult. If the yield were 20 or 25 billions a substantial burden on consumption would be inevitable. A β of close to .5 might be the best that can be expected for a 20-billion-dollar level. If the level of tax yield were still higher, say 30 billions or more, β would hardly be below .6 and possibly substantially more.[19]

[16] In both cases, expression (2) reduces to

$$E = \frac{G}{r + k\alpha}.$$

[17] Given any level of β the limiting value for D is again where $E + 10 = D$. Assuming $\beta = .6$ and substituting in expression (2), we have

$$D - 10 = \frac{30 - 1.2D}{2.15 - 1.2},$$

or $D = 18.37$. For larger values of D and a β of .6, hoarding of deficit-financed funds would again be required to prevent inflation.

The relationship betwen E and D for $\beta = .6$ is determined by

$$E = \frac{30 - 1.2D}{.75 + 2(.7 - .6)}$$

or $E = 31.58 - 1.26D$ for values of $D \leqslant 18.37$.

[18] Note, however, that in choosing our gap illustrations we have excluded the more or less *automatic* changes in private investment which accompany general changes in over-all income. See, however, notes 11 and 12 above.

[19] In an unpublished study on the "Impact of the Personal Income Tax on Savings," I have estimated the impact of alternative income tax rate structures upon savings and consumption at a high and low level of yield. While the results of this study are based on rather inadequate information as far as the consumption impact for *any one* rate schedule is concerned, they do give some idea of the differential impact obtained under various rate schedules.

For a yield of 16 billion dollars at a national income of 140 billions, the impact upon consumption is estimated at 43 per cent, assuming rates in effect in 1944, at 30 per cent assuming a maximum degree of progression and at 50 per cent assuming a flat rate (however, with 1944 exemptions). For a higher yield level the impact on consumption

If this is the case, the currently popular proposition that full employment can be readily reached through a large balanced budget may be dismissed as of little practical interest. Assuming a β of .6, the balanced budget needed to fill the 30-billion gap would be about 42 billions; for a β of .7, the result would be 50 billions, levels of expenditure which would seem out of question for the peacetime economy. If, as is altogether likely, such an exceedingly high level of taxation should depress private investment below the assumed level, the required budget would be still higher, which in turn might depress private investment still further and so on. The result might be expected to be more favorable if a higher value for α is assumed. Thus, with α equal to .9 and β equal to .6 the required budget would be 32 billion dollars instead of 45 billions, but only on the assumption that r remains at .75. This, however, is unlikely, since the increase in α to .9 would require that almost all the additional expenditures be for cash subsidies to low income consumption. If we allow for this and assume r to fall to .1, while keeping α at .9, the required budget rises to 53 billion dollars, or above the level required under the initial assumption. More reliance on consumption subsidies, therefore, does not render the "large and balanced" budget approach more feasible.

Size of Required Deficit as a Function of the Expenditure Level and Tax Structure

There is much to be said in favor of an alternative approach under which the desired size of the budget is taken as the independent variable, while the size of the deficit is obtained as a function of the predetermined expenditure level and of the best possible value for β. If this approach is taken, expenditure planning will be guided more largely by considerations of resource allocation and there will be less need for "made-work" projects. To illustrate this approach, expression (2) might be rewritten as

$$D = \frac{G + Ek(\beta - \alpha) - rE}{k\beta} \tag{4}$$

Retaining r at .75 and α at .7, we have, for the 30-billion-dollar gap assumption,

$$D = \frac{30 + E(2\beta - 2.15)}{2\beta} \tag{5}$$

Table II shows the required levels of deficit corresponding to selected levels of public expenditures ($E + 10$) and values of β. Again the results are shown for both the 30-billion and the 20-billion gap assumptions and again Table II is to be read like a mileage chart. Thus for the large gap assumption and a budget of 28 billions (where $E = 18$), the required deficit is somewhat below 11 billions if β is equal to .6.

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would be substantially higher. Assuming such proportionate increase in the 1944 rates as is necessary to raise the yield to, say 30 billions (which might correspond to 40 billions at the higher income level here assumed), the ratio would be well above 50 per cent. If excises were relied upon, the average ratio would, of course, be substantially higher.

TABLE II.—REQUIRED SIZE OF DEFICIT UNDER ALTERNATIVE FISCAL POLICIES[a]
(In billion dollars)

β[b]	$G=30$[c]				$G=20$[c]			
	Total Budget Expenditures							
	28	23.9	20	15	28	20	19.3	15
0	*	d	—	—	*	*	d	—
.1	*	13.9	—	—	*	2.5	9.3	—
.2	*	13.9	—	—	*	6.3	9.3	—
.3	3.5	13.9	—	—	*	7.5	9.3	—
.4	7.1	13.9	—	—	*	8.1	9.3	—
.5	9.3	13.9	18.5	—	*	8.5	9.3	14.3
.6	10.8	13.9	17.1	—	2.4	8.8	9.3	12.7
.7	11.8	13.9	16.1	—	4.6	8.9	9.3	11.6
.8	12.6	13.9	15.3	—	6.3	9.1	9.3	10.8
.9	13.2	13.9	14.7	—	7.6	9.2	9.3	10.1
.95	13.4	13.9	14.5	15.0	8.2	9.2	9.3	9.9
1.0	13.7	13.9	14.3	14.72	8.7	9.3	9.3	9.6

For explanation of asterisks and dashes, see text below.

[a] Effects of *specific* revenue and expenditure policies on private investment are disregarded.

[b] Fraction of marginal tax dollar reflected in reduced consumption.

[c] Deficiency in income with balanced budget of $10 billion.

[d] If $\beta = 0$, it is a matter of indifference whether the budget is tax- or loan-financed. Hence, the deficit may assume any value between zero and total budget expenditures.

The general picture provided by Table II is very similar to that of Table I. Moving *down* each column we now find that the required deficit will increase or decrease with a rising value of β, depending on whether the adjusted yield falls above or below the initial level, *i.e.*, whether T is positive or negative. Again the required deficit is the same for all values of β when E is equal to D so that the level of tax yield is unchanged.[20] Moving *across* each line, we now find at all values of β that the required deficit is the larger the smaller the size of the budget.

Again certain combinations of E and β are ruled out because they imply either (a) an excess of deficit over total expenditures or (b) a negative deficit. In the case of (a) we have a situation where the proposed increase in expenditures is relatively small, so that a decrease in tax yield is required to obtain the necessary leverage. The heavier the consumption incidence of the initially obtained tax yield, *i.e.*, the higher β, the more stimulus is provided by a dollar's worth of tax reduction and hence the smaller is the required tax reduction or necessary deficit. If the β of the decrement in tax yield falls to a certain point, the required deficit will be so large as to necessitate the repeal of all taxes. If β is still smaller, we have the situation indicated by dashes in Table II, where the scheduled increase in expenditures is insufficient to pro-

[20] The explanation is similar to the preceding case, see note 16 above.

vide the required leverage, even though the entire budget is deficit financed.[21] The leverage can not be increased further without raising expenditures, and this is not possible because a given budget level is assumed. With respect to (b) the opposite situation prevails. There the scheduled increase in expenditures is relatively great, so that tax yields must be raised to avoid inflation. The lower the value for β, the higher will the increase in tax yield have to be and the smaller is the permissible deficit. If the β of the increment in tax yield falls to a certain point, it will be necessary to balance the entire increase in expenditures with increased tax yield, so that D is equal to zero. If β is still smaller we have the situation indicated by asterisks in Table II, where the scheduled increase in expenditures is too high to avoid inflation, even though a balanced budget is retained.[22]

Table II indicates that, within the range of feasible adjustments, the size of the required deficit may be considerably reduced, or the extent of permissible tax increase be considerably increased, if β can be held to a low level. Taking the 28-billion-dollar budget, for instance, the necessary deficit for the large gap assumption will be 7 billions if the β for the additional taxes can be held to .4 and nearly 12 billions if the β rises to .7. For the small gap assumption the same budget can be balanced only if β can be held down to .52. But whatever their relative impact upon consumption, all additions to tax yield are more or less restrictive. As shown in Table II, the size of the deficit will have to remain the major variable of budget policy if the initial gap in the level of over-all income is large, whether the deficit be brought about by raising expenditures more than tax yields, as under the large budget assumptions, or by raising expenditures while lowering tax yields, as under the small budget assumptions.

Specific revenue and expenditure effects on investment are included in expression (1) but have been neglected in its experimental application to possible post-war magnitudes. Since the picture might be quite different if such effects on private investment are accounted for, this greatly limits the usefulness of our illustrations. The effects of fiscal policy upon private

[21] For the case of the 20-billion budget and the large gap assumption, expression (5) reduces to

$$D = \frac{10\beta + 4.25}{\beta}.$$

The minimum value below which β must not fall is reached where D is equal to $E + 10$ or 20; at this point β is equal to .425. If β is smaller, the required deficit exceeds the level of expenditures, *i.e.*, the scheduled increase in expenditures is insufficient to provide the necessary leverage even though the entire budget is deficit financed.

[22] For the case of the 28-billion-dollar budget and the large gap assumption, expression (5) reduces to

$$D = \frac{18\beta - 4.35}{\beta}.$$

The minimum level below which β must not fall is now reached where D is equal to zero and hence β is equal to .24. If β is smaller, the formula indicates a "negative deficit," *i.e.*, tax-financed hoarding is required to forestall inflation.

investment are a complex matter and sufficiently familiar to render any brief enumeration superfluous; a detailed discussion would greatly exceed the limits of this paper.

Even cursory examination of the problem suggests, however, that private investment is likely to be the lower, *at any given level of total income*, the higher the level of taxation and (with the exception of stimulating developmental programs) the larger the government budget. If the initial deficiency in over-all expenditures is large, we have seen that the balanced budget approach will require exorbitantly high levels of expenditures and taxation, both of which will tend to depress private investment. If, as a result, private investment expenditures are depressed, budget figures even higher than those shown in Table II are needed. If the unfavorable reaction of private investors is violent, tax-financed additions to expenditures when carried beyond some point may well lower rather than increase the over-all level of income.

All this points to the conclusion that a substantial deficit will be needed unless we succeed by non-fiscal means to narrow down the initial deficiency in the over-all expenditure level to much below the illustrative figure of 30 billion dollars used in the preceding discussion. If a large deficiency remains to be filled through fiscal measures, after other policy approaches have been exhausted, it will be neither desirable nor feasible to make expenditures sufficiently large to balance the budget at full employment. Instead, a thoroughly worth-while expenditure budget should be provided including expended social security and adequate developmental programs stimulating to private investment, but excluding made-work projects.[23] On the basis of such an expenditure program the level of taxation should then be set sufficiently low to leave such deficit as the economic situation may require in the average year. After the budget is thus adjusted to the longer-term needs of the economic situation, short-term variations in underlying conditions and localized relief needs remain to be met by a flexible expenditure program and an elastic tax system, including flexible income tax rates.

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Professor Hansen's Fiscal Policy and the Debt

In the face of his consistent championship of a fiscal policy which provides for government expenditures to bolster the national income, Professor Alvin Hansen has equally consistently injected the warning that "there are limits to the public debt which, if exceeded, will tend to affect the workability of the economy."[1] These limits are conceived in terms of relatives. The degree to

[23] This principle, of course, does not indicate whether the budget should be large or small. It merely requires that long-run expenditure planning should be considered primarily a matter of resource allocation rather than of employment creation.

[1] Hansen, *Fiscal Policy and Business Cycles* (New York, Norton, 1941), p. 174. See also Hansen and Perloff, *State and Local Finance in the National Economy* (New York, Norton, 1944), pp. 295-96.

which deficit financing may be used to achieve the desired goal depends upon the economic circumstances of the moment. Some of the factors which must be considered are (1) the nature of the expenditures themselves; (2) the wage and price structure; (3) the tax schedule; (4) the distribution of the debt; and (5), this above all, the level of the national income.

The national debt cannot be considered by itself, but only as the numerator of a ratio, the denominator of which is the national income. If the national income is rising with the national debt, the ratio need not change and the growing debt need cause no alarm. Professor Hansen does not necessarily imply that the existing ratio should be maintained. At *some* point, however, the ratio must be held and at that point the above line of argument becomes important. Thus Professor Hansen, after exploring the necessity of restricting government expenditures when inflation threatens, goes on to say:

> But a complete reversal of this procedure is called for when depression threatens. For an increase in the debt resulting from expenditures in excess of revenues from taxation will add to real income and employment when the purchasing power in the hands of the public is short of the total of goods and services that could readily be produced for sale.[2]

The national income rises with the public debt; and the service charges on the debt, even in the absence of any change in the interest rate, are proportionately no greater.

Let us examine this argument more closely in the light of certain other propositions laid down by Professor Hansen.

1. "Whenever investment falls off, employment and income decline."[3] This cardinal proposition is self-evident in view of Hansen's definition of income as equaling consumption plus investment. It is repeated in various forms throughout his writings.

2. "What is necessary is that private investment must be equal to the savings that are generated at a high employment level. When private investment falls below this level of savings, income and employment necessarily will decline unless government issues absorb the excess of saving over net private investment."[4] Thus, in the absence of sufficient private investment, government expenditures are needed not to *increase* but to *sustain* the national income.

3. "The problem of our generation is, above all, the problem of inadequate private investment outlets."[5] Thus we may *expect* an insufficiency of private investment, and the necessity of governmental expenditures to *sustain* the national income.

Now if the public debt is rising and the national income remains at a sustained level, the ratio argument falls to the ground. The burden of service charges on the debt is becoming proportionately greater. At what point will

[2] *State and Local Finance*, p. 293.

[3] *Fiscal Policy and Business Cycles*, p. 226.

[4] *State and Local Finance*, p. 234.

[5] *Fiscal Policy and Business Cycles*, p. 362.

the worsening ratio destroy public confidence—confidence not so much in the solvency of the government as in the workability of the economic system?

One of Hansen's supporters, David McCord Wright, has noted this fear of "conservative writers," admits the theoretical basis for it, but promptly dismisses it as "a wholly false issue which serves only to confuse the real question involved."[6] It must be pointed out, however, that Wright may so summarily dismiss this very real problem because he does not agree with Hansen on the thesis of the mature economy.[7] Once the assumption of inadequate private investment outlets is admitted, the dangers of a continuously (or nearly continuously, in deference to Hansen) rising debt, against a stable national income, become real, not theoretical, considerations. And Hansen's comforting words, "There is not—there cannot be——any financing problem that is not manageable under a full-employment income,"[8] fall strangely flat.

A careful reading of Hansen seems to indicate that his failure to recognize the violence done to his fiscal policy by this possibility of continued government expenditures to sustain, not increase, income stems from his failure to distinguish between the application of that policy to cyclical depression and to secular depression. His ratio argument may be admitted if one is dealing with business cycles, where, over time, depressions are matched by booms, and deficit expenditures by tax receipts in excess of expenditures. "It becomes clear, then, that if the over-all total of the debt in relation to the national income is manageable, it may be raised or lowered, as a part of the operation of a coördinated fiscal policy in conjunction with a flexible program of public investment, sufficiently to keep the economy at all times on an even keel."[9] Secular depression, however, is characterized by an absence of booms, and, following Hansen's policy, by continued deficit financing, except for rare intervals when private investment alone can carry the load. The ratio of debt to income increases. Where now is the safe limit?

Professor Hansen may not have considered this particular problem because, strangely enough, he seems to believe that government spending to *maintain* income will not as a rule be necessary. This view, surprising for one who accepts the mature economy thesis, is based upon his assumption of "an increase in the national income as productivity increases, at the rate of 3 per cent per annum."[10] From this position he goes on to say that, due to this

[6] D. McC. Wright, "Moulton's *The New Philosophy of Public Debt*," *Am. Econ. Rev.*, Vol. XXXIII, No. 3 (Sept. 1943), p. 587-88. I strongly object to Wright's line of reasoning in this portion of the article cited. There is no reason to assume that our economy is suffering from a "disequilibrium" which can be "corrected," which is his conception of the real question involved. Such an hypothesis is itself founded on the (unwarranted) assumption that the so-called disequilibrium, whatever it may be, may not constitute a basic change in social structure to which the economy must be adjusted. However, no further discussion of this point will be made here, as this article is concerned with Hansen's theories and not Wright's. Wright's statements have been introduced only for what light they may throw upon Hansen's analysis.

[7] Wright, *Am. Econ. Rev.*, Vol. XXXIII, p. 579.

[8] *State and Local Finance*, p. 188.

[9] *Ibid.*, pp. 293-94.

[10] *Ibid.*, p. 288.

rise in national income attributable to population increase and technological advance, a rising debt can be accepted without alarm since income is growing simultaneously with debt, and the debt-income ratio can therefore be maintained.

If the public debt should rise, on the average by $3 billion a year, this would mean, assuming a public debt at the end of the war of around $275 billion, an increase in the debt of slightly over 1 per cent per annum. We can be quite certain that income will rise substantially more than that, probably around 3 per cent per annum, due partly to an increase in the labor force and partly to increasing per worker productivity. As productivity rises, it automatically follows that the real income must be raised proportionately, or more and more unemployment will be created. If we are to solve our unemployment problem and continue to achieve higher and higher levels of productivity we *must* achieve higher and higher levels of real income. A $3 billion annual deficit cannot be regarded as resulting in a dangerous ratio of public debt to national income. As we have seen, the debt would rise percentagewise very much less than the expected increase in national income. Thus the ratio of debt to income would, on this model, continuously fall.[11]

This passage follows an exposition by Hansen of a model budget based on an intermediate level of net private investment. In this model he assumes savings of 15 billion dollars out of an income of 135 billions, with 3 billions as the unspent margin. "If the level of private investment which could be maintained for long is around $12 billion, and if private savings at the assumed income of $135 billion are $15 billion, it is clear that new government issues would have to take up the difference unless ways and means were found of raising private consumption and reducing the volume of savings. . . . In this model, therefore, it is assumed that federal expenditures, including the social-security program, are $27 billion, with taxes, including payroll taxes, at $24 billion."[12] He then goes on to say, as previously quoted, that this 3-billion-dollar annual deficit cannot be regarded as dangerous since it is offset by an (estimated) annual increase in income of 3 per cent.

These are some of the most perplexing paragraphs in all the Hansen literature. It is difficult to perceive what Hansen has in mind here. Is he talking about an annual 3 per cent increase in real income, unaccompanied by an increase in money income? If he is talking about a rise in money income, in what manner are population increases and technical advances translated into money income? By increased private consumption and investment, or by further government spending? Let us examine all these possible meanings of this obscure argument which is so critical in Hansen's analysis. In such an examination it will be remembered that whatever the nature of the 3 per cent rise in income, it is to be accompanied, on Hansen's model, by deficit spending to the extent of 3 billion dollars.

Although Hansen does speak of real income in these paragraphs, he cannot mean an increase in real income unaccompanied by an increase in money

[11] *Ibid.*, p. 240.

[12] *Ibid.*, pp. 239-40.

income. For continued deficit spending in the absence of a rise in money income would necessitate a worsening of the debt-income ratio, a possibility which Hansen does not envisage. This interpretation must therefore be ruled out.[13] The question then becomes: In what manner do the population and technological factors provide the basis for an increase in money income?

Is Hansen perhaps suggesting that population increases and technological advances will bring out additional private investment and consumption, to the extent of 3 per cent of the income of the preceding period? It does not seem likely. He begins his model with an assumed income of 135 billion dollars, of which 3 billions are saved and not spent, necessitating government deficit spending to sustain this level of income. With government spending, however, the slack is taken up, and there remains no unspent margin. Now in what manner does the income of 135 billions in this period become an income of 139 billions in the second period—that is, an income which has been increased 3 per cent due to population and technological factors?

Obviously, the income rise must come through increased consumption or increased investment. Hansen himself has declared that, at a given income level, consumption is a most stable function, and that an increase in consumption is dependent on a prior increase in investment.[14] Moreover, it is this very increase in investment which causes the rise in income—not a rise in income which causes investment. It cannot be, therefore, that in Hansen's model income rises from 135 to 139 billions *prior* to a net increase in investment. It must be an increase in investment (permitting also an increase in consumption) which itself creates the new income. Now if new private investment to the extent of 3 per cent of the previous period's income takes place in the second period, this new investment (and subsequent new consumption) will take up the slack of 3 billion unspent savings which Hansen assumes—and create an additional one billion of income besides. Income will have risen not to 139 billion dollars but to 136 billion, but it will have risen. The unspent savings of the period will have been utilized. And so long as Hansen assumes a *normal* 3 per cent rise in income due to growth factors, and *normal* unspent savings of 3 billion (increasing somewhat, no doubt, with the increase in income), the 3 per cent rise, resulting from new investment, will always more than compensate for the otherwise unspent 3 billion dollars. If Hansen believes that the 3 per cent rise cannot take up *all* the unspent margin, then he is assuming that somehow, some way, somewhere, income has risen *prior* to the new investment. Otherwise, no government deficit financing is necessary on this model, unless there are unemployed factors and it is declared public policy to put them to work and push up income faster than it otherwise would rise. In brief, Hansen cannot assume at one and the same time (a) a national income *less* than the preceding period (falling from 135 billions, obtained in part from deficit spending, to 132 billions, necessitating continued

[13] It is possible Hansen may mean that a rise in real income makes the growing debt no more burdensome to the taxed individual than formerly, but if this is his intent he is, at the same time, abandoning the very debt-income ratio argument which he is trying to establish! That ratio is constantly referred to in money, not real terms. The injection of real-income considerations would introduce entirely new problems which Hansen does not consider, and in which—at least in this context—he is presumably not interested.

[14] *Fiscal Policy and Business Cycles,* p. 305.

deficit financing) and (b) a national income *greater* than the preceding period (rising by 3 per cent due to population and technical considerations).

There is one other possible interpretation to be placed on Hansen's words —that population growth and technological advances permit a normal annual 3 per cent increase in national income, but that the new investment required to obtain this increase is not forthcoming from private business and must be made by the government if the increase is to be attained at all. On this construction the argument would run that 3 billion dollars of government deficit financing would be required to maintain the assumed original income level of 135 billions, and additional government deficit financing would be needed to drive income up to 139 billions, the level now permitted by advancing population and technology.[15] Further, this new debt could well be tolerated because income is rising with it and the debt-income ratio is thus no worse than before.

It will be recalled that Hansen is assuming a ratio of approximately 2 to 1, since he begins with a debt of 275 billion dollars and an income of 135 billions. Now if the "safety" of this 2 to 1 ratio is accepted without question, this construction of the argument is logically defensible. For even if the 3 per cent rise in income can be achieved *only* by government spending, the total increase in the debt would be 7 billions (3 billions to bring income up to the previous level of 135 billions, 4 billions to drive it up by 3 per cent), while income would rise by 4 billions. Thus the ratio of the increases in debt and income is somewhat less than the original ratio of 2 to 1.

It is to be noted, however, that proponents of this argument are in the position of saying that it is (or may be) bad policy for the government to spend to *maintain* income, since the debt-income ratio would be worsening. Debt rises while income is only sustained. But it is sound policy to spend as much more as necessary to *raise* income by half the amount of the additional debt. It is (or may be), therefore, bad for government to spend 3 billions to sustain income at 135 billions, but it is sound for government to spend 7 billions to raise income to 139 billions. On the basis of Hansen's words alone, one would tend to conclude that this line of argument is not what he has in mind, however, since he speaks of a public debt rising on the average by only 3 billion dollars a year—the amount necessary, on his model, merely to sustain income.

At this stage one might conclude that Hansen's injection of the 3 per cent rise in income due to population and technological factors is wholly extraneous to the analysis. If these factors do secure an increase in income, it is only in so far as they operate through investment and consumption. In so far as they operate through investment and consumption, they may serve to take up any existing slack resulting from unspent savings. If they take up that slack completely, government deficit spending is not needed. If they do not take up the slack, government deficit spending can be resorted to, in an effort to sustain the level of income—though in doing so the debt-income

[15] No account is taken here of possible multiplier and acceleration effects, since such effects do not alter the general analysis and since Hansen has himself disregarded them in his considerations of the amount of government spending required to offset unspent savings.

ratio is worsened. If it becomes declared policy *to see to it* that national income advances by 3 per cent per year,[16] government spending can be proportionately increased—whether or not a slack of money savings has to be taken up. The question of "normal" income increases due to population and technology can be handled wholly within the framework of analysis which Hansen has himself provided. But population growth and technological advances cannot in themselves be considered as *automatically* increasing income and thereby justifying a rising debt.

These conclusions would seem warranted on the basis of Hansen's published work, since his intent there is not clear. If this uncertainty as to his intended meaning protrudes from his writings, however, we have a perhaps clearer indication as to what he has in mind from others who may have acquired a greater familiarity with his views, possibly through personal contact or sources less well known than his principal writings. From them we may presume that Hansen has, in fact, intended to convey the third of the three possible interpretations examined above—that population and technological advances permit a normal annual 3 per cent increase in national income, *which should be secured even if attainment comes only through deficit financing.*

Thus one to whom the earlier paragraphs of this article were sent for editorial comment declared:

> The secular stagnationists, such as Hansen, assume there is stagnation in investment opportunities and effective demand, but they are the most blooming optimists with respect to technological change as it affects productivity and *potential* national income. How much government expenditure would be necessary for full employment under these dynamic conditions? Hansen assumes that savings at full employment will always be about a constant proportion of income because of upward shifts in the consumption schedule. At worst, therefore, if private investment opportunities were zero, government deficits would have to grow in geometric ratio along with the compound interest rate of growth of income. And it turns out that the debt would also grow at the same compound rate of interest—leaving the ratio of debt to income unchanged. This is precisely what Hansen has always meant.

Such a policy of government guarantee of a *rising* national income has been explicitly stated by Evsey D. Domar in a recent article in the *American Economic Review*.[17] While Domar is a Hansen adherent, it is not possible to say whether his views also are representative of Hansen's. Answering critics of government deficit financing, Domar points out that *if* national income rises at a constant percentage rate, on the basis of certain stated assumptions the ratio between the debt and the national income will approach a constant. In a note of warning, he is careful to point out, however, that although his discussion "might give the misleading impression that national income is the independent variable,"[18] it is of course investment expenditures which are

[16] On the prospects of maintaining this assumed rate of growth, see B. U. Ratchford's review of Hansen's and Perloff's book, *Am. Econ. Rev.*, Vol. XXXIV, No. 4 (Dec. 1944), p. 918.

[17] Vol. XXXIV, No. 4 (Dec., 1944), pp. 798-827.

[18] Domar, *Am. Econ. Rev.*, Vol. XXXIV, p. 804, note 18.

the independent variable. "If a rising income is desired, there must be both rising expenditures and rising productive capacity."[19] And to assure the necessary monetary expenditures, the government should if necessary, though not desirably, resort even to leaf-raking projects.

In that simple recognition that national income is not the independent variable lies the *only* difference between Hansen's and Domar's analysis.[20] Surely no one would raise the ridiculous charge that Hansen does not appreciate this elementary income-investment relationship! Yet Hansen has written as though a rising national income was given: "We have a right to *assume,* I think, an increase in the national income as productivity increases, at the rate of 3 per cent per annum."[21]

Numerous passages in Hansen's writings could be adduced to show his stress of the dependent relation of income to investment. In fact, the whole burden of his writings is to that effect. The assertion being made here is only that, in connection with his justification of a rising debt, Hansen has not made clear that the *rising* national income, which is to justify the rising deficit, is to be attained if necessary *by* deficit—that is to say, that deficit financing should be undertaken as needed to guarantee the (assumed) 3 per cent increase in income.[22] If this is actually his position, then Hansen and Domar stand on the same footing. The debt problem is solved by incurring more debt.

It would clarify the economic atmosphere and remove important grounds for misunderstanding if Professor Hansen himself redefined his position. Forgetting, at least for the moment, all that has gone before, a concise answer from him to the following question would be welcome: Should the government guarantee, by deficit financing as needed, a national income rising annually by a constant percentage rate?

If the answer is in the affirmative, then Hansen's critics have been unduly concentrating their fire. For in addition to the problem of the burden of the debt (which remains unsolved in spite of Domar's excellent analysis, and which contrary to his belief may not even be the most important objection), there is a further problem awaiting examination: the political and economic effects of governmental efforts to spend the sums envisaged. Some aspects of this problem, it is true, have been raised in general terms by such writers as Hayek and von Mises. It has not, however, received its deserved examination in terms of specific application to American institutions.

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* The author is now on active duty with the United States Naval Reserve. In accordance with Art. 113(2) of the 1920 (revised) *United States Navy Regulations,* it is here noted that the opinions or assertions contained herein are the private ones of the writer and are not to be construed as official or reflecting the views of the Navy Department or the naval service at large.

[19] *Am. Econ. Rev.,* Vol. XXXIV, p. 817. Domar is more cautious than Hansen in his projection of the rate of increase of productive capacity.

[20] Except that Hansen would no doubt accept leaf-raking with greater reluctance.

[21] *State and Local Finance,* p. 288. Italics supplied.

[22] If this is what Hansen means, his faulty arithmetic in such a passage as that cited in note 11 above has provided additional grounds for confusion. See p. 403 above.

A Note on Fiscal Policy: A Clarification

I welcome Mr. Neil Chamberlain's note because it gives an opportunity to clarify matters which have either been assumed or not stated with sufficient precision.

Let me answer the last question first. A full employment program means the assumption by the national government of responsibility of ensuring that total money outlays (private and public) will be sufficiently large so that the demand for goods and services at current prices will be adequate to employ the entire labor force (transitional unemployment of 4 or 5 per cent considered). This indeed is essentially the goal set forth in the Murray Full Employment bill and in the British *White Paper on Employment Policy*.

If this goal is over the long-run substantially realized the national real income can be expected to rise by reason of (a) improvements in technique and (b) increase in the labor force. Under such a program total money income and total real income would rise at approximately the same rate. Thus the internal purchasing power of the monetary unit would be preserved or, in other words, the cost-of-living price index would be substantially stable.

While improvements in production techniques can more or less be expected to occur automatically we should not leave this important matter to mere chance. We should deliberately foster technical progress by ample governmental support for scientific research. We should reform our patent laws so as to promote full use of existing technical knowledge. We should undertake a far more effective antimonopoly program.

Under a planned program of expansion, together with increasing productive efficiency and a growing labor force, we can estimate fairly accurately the probable rise in national income.

Should the government undertake such a program by loan expenditures, commonly called (though often with misleading implications) "deficit financing"? Mr. Chamberlain has apparently missed a point which I have repeatedly made, namely, that an expansionist and developmental fiscal program, designed to promote full employment, can be wholly tax-financed. (See *State and Local Finance in the National Economy*, pp. 243-46; 287-92, and references there cited to my other writings).[1] A tax-financed expansionist program will, however, require larger public outlays to achieve full employment than one partially loan-financed. An increase in public outlays, tax-financed, will change the consumption function and also the volume of private investment so as to produce a savings-investment balance at full employment. I elaborate the technical aspects of this problem somewhat more fully elsewhere in this number of the *Review*.

Here it is sufficient to stress the point that an expansionist and developmental program does not necessarily involve long-run deficit financing. I happen to believe, however, that given the conditions which are likely to

[1] See also Sir William Beveridge, *Full Employment in a Free Society;* and Henry C. Wallich, "Income-Generated Effects of a Balanced Budget," *Quart. Jour. Econ.*, Vol. LIX, No. 1 (Nov., 1944), pp. 78-91.

confront us in the post-war years,[2] it would be wiser for us to loan-finance some considerable part of the developmental program which it will be necessary for us to undertake. A reasonable degree of loan financing will offer outlets to our savings and would fit our established institutional arrangements better than the more drastic program of financing the whole from taxation. There will be difference of opinion as to how much should be financed from taxes and how much from borrowing. But I repeat, it can all be tax-financed if this policy is deemed the desirable one.

A point which bothers Mr. Chamberlain is the savings-investment balance in (a) a society in which income is *maintained* and (b) one in which income *grows*. To begin with it should be stressed that the *maintenance* of full *employment* in a progressive society (advancing techniques and growing labor force considered) means a *rising* real income. Many of us (myself included) have perhaps been somewhat careless in using the phrase "maintenance of income" when we really meant "maintenance of a full-employment income." The former literally means a stable income at a *constant* level; the latter means (in a growing society with improving techniques) a *rising* income.

Now what about the savings-investment relationship (a) under a *constant* income, and (b) under a *rising* income? "Investment" here includes all offsets to savings—public loan expenditures as well as private investment. In Robertsonian language, saving and investment are in equilibrium only when income flows on at a constant level. If income rises, investment exceeds saving; if it falls, saving exceeds investment. However, in the statistical sense (*ex post*) used in estimates of the component parts of the gross national product, saving and investment are always equal. (Saving and investment are also always equal in the "logical" or "mathematical" formulation of Keynes.)

In a full-employment society (with improving techniques and a growing labor force) income must rise; or in Robertsonian language, investment will exceed saving. In other words, saving from the disposable income of yesterday (Robertson's "saving") must be less than the realized saving springing from the higher income of today (saving in the statistical or *ex post* sense).

Now the 3-billion-dollar loan expenditures referred to in my model has to do with the problem of maintaining full employment. Under certain conditions in which the tax structure and the propensity to save are given (together with technological, population and other factors affecting the inducement to invest), 3 billion dollars of public loan expenditures may be necessary to provide full employment. Under other conditions this figure may be zero or it may be 6 billions. My 3 billion figure was one out of several used in a series of models set out for purposes of analysis and discussion. I was not setting out an actual budget for, say, the year 1950. What that should be will depend upon the circumstances of the time.

The sum of 3 billion dollars might indeed be the amount of public loan expenditures needed to maintain a full-employment income (*i.e.*, a *rising* income in a society enjoying technical progress and a growing labor force). We know that in a growing society investment (private investment plus public loan expenditures) must exceed "saving" (Robertsonian) by an

[2] I refer here to the period following the post-war re-stocking boom.

amount equal to the increase in income necessary to maintain full employment. This tells us by how much investment (public and private) must actually exceed Robertsonian saving. If income in a full-employment program does rise by 3 billion dollars per year, and if public loan outlays are also 3 billions, then private investment and "saving" (Robertsonian) would be equal at, say, 12 billion dollars. On this basis, however, saving (in the statistical, *ex post* sense) would be 15 billions and, since private investment is only 12 billion, therefore 3 billions of public loan expenditures would be the necessary condition to sustain a *full-employment* income (*i.e.*, a *rising* income). If, however, savings were 15 billion dollars in the Robertsonian sense and private investment were only 12 billions, then 3 billions of public loan expenditures could not sustain a full-employment income but only a constant income. In *State and Local Finance in the National Economy* (p. 233, and in what follows), I was using the statistical meaning of saving, but I am bound to admit that the concepts are not there sufficiently elaborated.

While the definitions used in the model are certainly not sufficiently precise, I think the argument with respect to the ratio of national debt to income is pretty clear. What I said in substance was that an expansionist and developmental fiscal program designed to maintain full employment should give us a rising national income of 2 to 3 per cent per year depending upon the rate of improvement in the arts and the growth of the labor force. Given this rise in national income, the debt could rise by a corresponding percentage without any increase in the ratio of debt to income.

Should we conclude that it would, on balance, be desirable policy to hold the debt-income ratio where it will be at the end of the war, that would permit an annual volume of borrowing of, say, 6 to 9 billion dollars per annum in the first years (and more as the base rises) if we assume an increase in income of 2 or 3 per cent per annum. Moreover, as is well known, the ratio of debt to income could rise substantially without involving any increase in tax *rates* owing to the high elasticity of tax revenues under a progressive tax structure.

The final question relates to whether the necessary public outlays would encroach upon private enterprise and weaken political democracy. With respect to the former, economists would do well to study, far more than they have done, the areas where our deficiencies are the greatest. They include education (40 per cent of our children grow up in sub-standard areas) public health facilities, nutrition, slum clearance, resource development and many others—precisely the areas in which only public outlays can meet the need. Large public outlays in these areas are sorely needed quite apart from the problem of full employment. And these are not areas that encroach upon private enterprise. Whether meeting these problems will weaken or strengthen our political democracy I have discussed elsewhere.[3]

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[3] See my article on "The Crusade Against Planning," *New Republic*, January 1, 1945.

Mr. Domar's "Burden of the Debt"

In Mr. Domar's article entitled "The 'Burden of the Debt' and the National Income,"[1] it seems to me that he has, by his assumptions and his methodology, eliminated from the area of consideration nearly all significant economic problems. In this note I shall examine: (1) the assumptions underlying Mr. Domar's computed "tax rates"; (2) the relationship assumed by him to exist between public deficits and national income (*i.e.*, the size of the multiplier); and (3) the effects which he expects varying tax rates to have upon investment and income.

If I understand him correctly, Mr. Domar's principal concern is with the rates of taxation which would be necessary, under various assumed levels of national income, to produce the funds required to pay the interest on a national debt which grows annually and without limit by a constant per cent of the national income. He attempts to determine what those rates would be by computing the dollar amount of the interest on the debt each year and then relating those amounts to the taxable (national) income, the latter being defined to include the interest paid. The ratios so arrived at he labels "tax rates." He is able to do this because he assumes "that service charges are raised by means of a *proportional* income tax imposed on the total taxable income (*without any exemptions*) . . ." (p. 802; italics supplied). He does not so state, but he also appears to assume that no deductions would be allowed.

The federal government does not now levy any tax closely resembling the one assumed by the author nor is it likely to levy any such tax in the predictable future. Consequently, the "tax rates" arrived at by Mr. Domar are as unrealistic as are his assumptions of proportionality and no exemptions; it is difficult to see wherein they have any significance except as an exercise in arithmetic. Cursory examination of figures for the calendar year 1942 indicate how far removed this assumed tax is from the income tax then in effect. In that year the personal exemption for a married man was $1,200 and for a single man, $500; the credit for a dependent was $350. These exemptions are much lower than those in effect in the years immediately preceding 1942; certainly they are as low as any we may expect in time of peace, if not lower. In 1942 income payments to individuals were 116.6 billion dollars[2]—near enough to Mr. Domar's assumed starting income of 130 billions to make the comparison significant. The total number of taxable individual and fiduciary returns made under the income tax law for the year 1942 was 27,285,265. These showed an aggregate net income of $68,187,727,000. From this figure were deducted $24,694,139,000 for personal exemptions, $5,037,270,000 as credits for dependents, and $5,963,694,000 as credits for earned income,[3] leaving as the *effective tax base* only $32,492,624,000, or not much over one-

[1] *Am. Econ. Rev.*, Vol. XXXIV, No. 4 (Dec., 1944), pp. 798-827.

[2] *Survey of Current Business*, April, 1944, p. 14.

[3] Treasury Department press release no. 41-69, April 28, 1944, p. 5. Credits for earned income are no longer allowed.

fourth of the total income payments for that year. From this we may infer that it would be more realistic and significant to take as the base for any probable income tax an amount equal to about one-third of total income payments rather than the full amount of such payments.

But when we have obtained a tax *base* within gunshot of reality we still are not justified in applying a flat, *proportional* rate to that base, for the world in which we live believes in steeply *progressive* income tax rates. Further, if we are interested in the effects of tax rates upon investment and income, we must remember that most individuals who supply or use investment funds in significant amounts are those whose incomes are subject, at least in part, to the higher income tax rates. By way of illustration, let us again examine the 1942 figures. In that year the *effective* tax rate (*i.e.*, the ratio of total tax paid to net income reported) on all taxable returns was 13.27 per cent. But for all net income classes above $5,000 the rate ranged between 16.95 per cent and 78.39 per cent.[4] Yet, those are only *averages;* the ratios of total taxes paid to total net income. Actually, when an individual is considering a commitment of investment funds, it is the *marginal* or *top* tax rate which influences his decision because that is the rate which would apply to any *increment* which might accrue to him from the investment. In the 1942 example given above, the top or marginal rates would obviously be considerably higher than the *average* rates quoted.

I realize that Mr. Domar is concerned solely with the "tax rates" necessary to raise the funds required to pay interest. But in the real world governments must raise funds for other purposes. When the taxpayer receives his tax bill he is not concerned with how much of it must go to pay interest on the debt, and how much for other purposes; it is the *total* tax bill that is significant to him. And in considering the effects of tax rates required by debt service we must regard them as rates added on to the rates required to produce the revenue needed for other purposes; that is, as *marginal* or *additional* rates. This point certainly would become more and more critical as the *total* tax rate approached 100 per cent.

For the past 50 years or more governmental expenditures for purposes other than interest in the United States have been increasing at a rate considerably greater than the rate of growth of the national income. In view of that fact and in view of what we know about the demands which will be made upon the federal government in the post-war years, it would be conservative indeed if we should assume that in the predictable future the non-interest expenditures of that government would bear a fixed relation to the national income, say 10 or 12 per cent. This proportion should, if any degree of reality is to be attained, be taken as a starting point. It may be adjusted, if desirable, by deducting the revenue derived from sources other than the income tax. The adjusted figure should then be converted into a rough tax base in the manner described above. We should then be in a position to consider the *marginal* or *incremental* effects of adding changes in the tax rate to service the debt.

[4] *Ibid.*

When several series of figures are calculated and expressed with precision, even as illustrations or assumptions, there is an implication that the quantities represented by those figures are significant and are reasonably close to what might be expected in practice. As ratios of debt interest to national income the figures given by Mr. Domar may have some significance, at least in the early years, but as tax rates they are utterly unrealistic and misleading. This is true because: (1) he assumes a tax base approximately three times as large as we may reasonably expect; (2) he assumes a proportional tax rate when we must logically contemplate progressive rates; and (3) he disregards the fact that the tax rates required by other expenditures must, for many years to come, be at least two or three times as large as the rates required for debt service. To attain any significance as tax rates the figures given by Mr. Domar for the begining year would have to be increased by at least 500 or 600 per cent. Mr. Domar would, in short, have to take as a starting figure a rate about equal to that which, under his most unfavorable assumption, he computes we would reach only after 300 years.

The second variable in which Mr. Domar is interested is the national income. The first puzzling aspect of his treatment of this topic is that he does not anywhere indicate or assume any quantitative relationship between deficit spending and changes in the national income. Early in the paper he states that our discussions and national experience have demonstrated that "money income can be raised to any desired level if the total volume of public expenditures is sufficiently high" (p. 799). But he does not say how many dollars of income will be produced by a dollar of expenditure. Throughout almost all of his paper he proceeds on the assumption that the public debt will increase by 6 per cent of the national income each year. He then states five possible patterns or models for the behavior of income but he does not indicate which of them is most likely to result. Further, he does not state that *with deficit spending* we *will* have any one of them nor that *without deficit spending* we will *not* have any of them. At one place (p. 804) he does state that "it is more meaningful to express the growth of income in percentage rather than absolute terms, and a function with a constant percentage rate of growth will occupy the center of the discussion." Several, if not most, of his conclusions seem to be based upon this premise. Yet he states elsewhere (p. 819) that "In general it appears very unlikely that national income, or any economic series for that matter, can grow indefinitely at some constant percentage rate." Two pages further on he is even more emphatic when he says, "It is possible, or even likely, that, in spite of all these efforts, national income will grow at a *decreasing* percentage rate." (Italics in original.)

At one place (p. 804) when considering the assumption that national income remains constant in the face of continuing public deficits, he states, "But there is something inherently odd about an economy with a continuous stream of investment expenditures and a stationary national income." Yet on page 801 he demonstrates that, once income has been raised, it will, unless spending is continued, fall back to its old level, leaving the debt permanently higher. "This," he says, "is the source of the debt problem. If the national income is to be *maintained* at the new level, *new amounts* must be

spent." (Italics supplied.) Again, no amounts are mentioned, but according to this latter analysis it would not be at all odd or unusual for national income to remain constant when investment expenditures are being made steadily. Rather, in certain situations at least, such expenditures would be necessary merely to keep income from falling.

Without some kind of multiplier, either proven or assumed, we are, of course, free to make the wildest kind of assumptions concerning the benefits of deficit financing without any danger of being proven wrong. Evidently Mr. Domar assumes that such a multiplier exists and that it is positive, but I find it impossible to determine, even approximately, what its size is. Perhaps he means for the reader to assume a multiplier for himself. I do not know.

The second puzzling aspect of his treatment of national income is the relationship he assumes to exist between it and increasing tax rates. It should be obvious that, if the increasing tax rates (if they do increase) required to service an ever-increasing debt are "burdensome," the principal economic effects of that burden will be reflected in the levels of employment and income. Yet the author assumes (columns 3 and 4 of Table II and column 2 of Table III) that the same rate of increase in the national income as prevails in the first year is maintained straight on through in the face of ever-mounting tax rates. This assumes that tax rates have no effect on investment and income; that the private investor continues doggedly saving and investing his funds, not only after the trend of tax rates has definitely shown itself, but even after the tax rate is taking 99.9 per cent of his income. That would seem to be solving the principal problem at issue by assumption.

B. U. RATCHFORD*

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The Burden of the Debt: A Rejoinder

I have a suspicion that Professor Ratchford did not understand the main argument of my article. It can be restated in the following manner:

Assumptions and Definitions:

1. It is assumed that private investment is insufficient to absorb all savings over a period of time and that government expenditures financed by borrowing are used as a method of achieving and maintaining full employment.

2. The average propensity to save is constant; national income equals the product of total investment expenditures (public and private) and the multiplier.

3. The government borrows on the average a constant percentage of national income, indicated by α.

4. A constant rate of interest, indicated by i, is paid on the debt.

5. The tax rate is defined as the ratio of interest charges to taxable income, the latter being equal to the sum of national income and interest receipts on the debt.

Conclusions:

1. If national income remains constant (Case 1) or rises at a constant absolute rate (Case 2), this tax rate will approach 100 per cent. Its growth, however, will be relatively slow.

2. If national income grows at a constant percentage rate indicated by r the tax rate will gradually approach a constant approximately equal to $\frac{\alpha}{r} i$,

3. With given α and i, the greater is the rate of growth of income, the lower will be the tax rate, even though a more rapidly rising income results in a larger absolute magnitude of the debt.

4. Over the period 1879-1929 real national income grew at about 3.3 per cent per year. There are good reasons to believe that, with sufficient expenditures devoted to scientific and technological research, national income can grow at 2 or 3 per cent per year for some time to come.

5. But whether national income will actually grow at this or any other rate depends on the behavior of monetary expenditures (unless a continuously falling price level can be assumed). If rising income is desired, expenditures (public and private) must grow at the desired rate.

6. Finally I concluded that less attention should be devoted to the problem of the debt and more to finding ways of achieving a growing national income.

Professor Ratchford's objections are essentially directed against three points: the tax rate; the multiplier; and the effects of taxes on investment.

The Tax Rate. Professor Ratchford objects to the definition given in (5) because the debt is likely to be serviced by income taxes, which (a) carry exemptions and (b) are progressive. I did not discuss the nature of the taxes which should be imposed to service the debt. It is of course well known that not all national income is subject to personal income taxation and that the latter is progressive. Depending on economic conditions and on one's views, this may indeed be an advantage, since the burden of the debt will then fall less heavily on low income groups. The use of the "tax rate" as an index of the relative debt "burden" is quite convenient and common, particularly for purposes of comparison;[1] this does not presuppose the exclusion of other indices, such as the behavior of the marginal tax rates. In any case, if Professor Ratchford finds my use of the phrase "tax rate" misleading, he can cross it out and substitute "the ratio of interest charges to national income (including interest receipts on the debt)."

There is no need to argue with Mr. Ratchford's figures. Two points should be noted, however. First, with any given exemptions, net taxable income as defined by the Internal Revenue Bureau rises more than in proportion to national income. Second, with any given ratio between net taxable and na-

[1] See, for instance, the *Report of the Committee on National Debt and Taxation* (Colwyn Report) (London, 1927), p. 66.

tional income, a given rise in net taxable income will produce a more than proportional increase in the yield from a given progressive income tax schedule. Therefore on both counts the yield from a given progressive income tax schedule increases percentagewise more rapidly than national income. If the ratio of interest charges to national income remains constant while income rises, an actual reduction in the progressive tax schedule imposed to service the debt will be possible.

Professor Ratchford insists that interest on the debt is not the only item in the budget. The government has other expenditures for which taxes have to be imposed. Granted. But clearly the average level of these taxes will again depend on the ratio of the total tax bill to national income or some variation of it. Depending on the behavior of these other expenditures, there is little doubt that a rapidly rising income, even though propelled by deficit financing, will result in much lower tax rates than would be the case with a perfectly balanced budget and a stationary income. Like many opponents of deficit financing, Mr. Ratchford implicitly assumes that government borrowing will fail to raise national income above the level where it would be without such a policy. If this is so, government borrowing should not be pursued, whatever may happen to the debt "burden." It certainly makes little sense to discuss the results of any policy on the assumption that the policy itself will fail in the first place!

The Multiplier and the National Income. What puzzles Mr. Ratchford is not clear. It is explained on pages 801-802 and in footnotes 13 and 18 that investment expenditures are the independent variable the behavior of which, with a given propensity to save, determines the behavior of national income. This part of economic theory is too well known by now to have warranted a more lengthy discussion in my article.

As to the magnitude of the multiplier which Mr. Ratchford was unable to find, it is clearly stated on pages 801-802 and 803 that the propensity to save is assumed to be constant and equal to 12 per cent. Surely, once these facts are given, there can be no difficulty in figuring out what the size of the multiplier is. It would be more fruitful to inquire whether 12 per cent is a reasonable estimate of the secular propensity to save and what part of it will have to be absorbed by the government. Those who would like to reconstruct the tables on the basis of numerical assumptions different from mine can easily do so by referring to the Mathematical Appendix.

Mr. Ratchford further complains that I do not indicate which of the several patterns national income will follow and that I do not state "that *with deficit spending* we *will* have any one of them nor that *without deficit spending* we will *not* have any of them." This brings us back to the point already discussed. If it is believed that national income can follow any given pattern equally well with or without government borrowing, the latter is useless and its results need not be discussed. I do not advocate enlarging the public debt *per se*. But if the alternative is unemployment and if other measures are not available or not appropriate, then deficit financing has to be resorted to. The answer to Mr. Ratchford's quandary is obvious.

Similarly, I have no desire to predict the future behavior of national in-

come. As I said, real national income *can* grow at some 2 or 3 per cent per year for some time to come. But whether it actually *will* grow depends on our fiscal and other policies. If we are timid in our decisions and afraid of the debt, national income will probably fluctuate about some relatively low level, so that the "burden" of the debt, as described in Case 1, will indeed rise. But if, without fear of the debt, we pursue a bold policy directed at maintaining full employment, national income will grow, and the debt "burden" will never become serious. If the government definitely commits itself to such a policy and demonstrates sufficient determination in carrying it out, we may yet be surprised at the relatively small magnitudes of deficits which will be required. An assurance of a large and always *rising* national income is still the best method for encouraging private investment.

Taxes and Investment. I do not believe either that private investment will be undertaken with tax rates approaching 99.9 per cent. Case 2 and particularly Case 1 were given as examples of policies which should *not* be pursued. Together with the discussion on page 821, they show that if national income remains constant or rises at a falling percentage rate, while the government borrows a constant percentage of national income, it is impossible to pay a constant interest rate on the debt without running into ever-increasing tax rates. Of course there is nothing sacred about this interest rate. When national income fails to rise at a constant percentage rate it means either that productivity of investment falls off, or that unemployment develops, or that both events take place at the same time. Under any one of these conditions it should be possible to reduce the interest rate on the debt. Yet Mr. Ratchford, with all his concern for the debt "burden," disregards that possibility.[2] His only approach to the debt problem is through the restriction of government borrowing.

The effects of income taxation on investment are outside the scope of the present discussion; a brief remark may, however, be in order. Mr. Ratchford is perfectly sure that income taxes (and particularly progressive taxes) discourage investment.[3] Again he sees only one solution—the reduction in tax rates. Actually the problem is much more complex.[4] Other things being given, the tax reduces expected returns. But other things are not given: they are affected by the fiscal policies which the government pursues and by the ways in which the tax yields are spent. The return on an investment is essentially a compensation for the risk which the investor undertakes. Suppose the law provides for very liberal loss offsets. Will not the tax then reduce *both* the return and the risk?

The point I am making is that a reduction of income tax rates is only *one*

[2] See his "The Burden of a Domestic Debt," *Am. Econ. Rev.*, Vol. XXXII, No. 3 (Sept., 1942), pp. 451-67. In this paper Mr. Ratchford discusses all the ramifications of the debt problem including the rôle which the French national debt played in the fall of France.

[3] *Am. Econ. Rev.*, Vol. XXXII, No. 3.

[4] For a more detailed discussion of this question, see E. D. Domar and R. A. Musgrave "Proportional Income Taxation and Risk Taking," *Quart. Jour. Econ.*, Vol. LVIII, No. 3 (May, 1944), pp. 388-422.

of the several methods of encouraging investment—a method which in practice may often be difficult and undesirable to follow. It may well be more practical to approach the problem from the other side—by reducing the risk involved. Liberal loss offsets and perhaps loss sharing, loan insurance, greater freedom in depreciation policies—these are some of the methods for encouraging private investment which may be more feasible and promising than a substantial reduction in income tax rates.

It is regrettable that Professor Ratchford's criticism was not made on broader issues. The definition of the tax rate and the ascertaining of the size of the multiplier are surely not the most interesting points for discussion. I expected that objections would be raised against my assumption of a constant percentage rate of growth of national income—an assumption which can be justified for some limited period of time but of course not forever, and that a discussion of rates of growth possible in the future would ensue. This rate of growth of income, whether constant or not, appears to me as a most interesting subject with great theoretical possibilities: it is one of the variables and perhaps *the* variable, around which a dynamic economic theory should be built. The problem of our day is the problem of employment, which in an economy of our type is essentially a function of economic growth. It cannot be analyzed in static terms, in which most of our economic theory is still expressed; what is needed is a dynamic theory expressed in terms of growth. This is a relatively new and most fruitful field for further investigations.

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United States Import Demand During the Interwar Period[1]

Interested economists are in general agreement that by far the most important factor to be taken into consideration in estimating the post-war level of United States imports is the level of our real income. It can be shown that in the inter-war period (1922 through 1937), changes in real income accounted for most of the movement in the physical volume of imports. The closeness of the relationship between real income and imports is shown in Chart 1.

The fact that imports depend so much upon real income may be explained upon two grounds. First, a substantial part of American imports consists of raw materials,[2] for which the demand is determined by industrial output. In-

[1] The writer is indebted to Messrs. Walter R. Gardner, Randall Hinshaw, Lloyd A. Metzler, and Wendell E. Thorne for advice in the preparation of the manuscript. However, he alone is responsible for the content.

[2] Which technically may take the form of finished or semimanufactured goods. *E.g.*,

dustrial output, in turn, is the most important component of real national income. Second, it is reasonably well established that consumption is closely related to the level of real income,[3] and most imports are simply a special form of consumption.

Nevertheless, one also should expect to find that imports are governed not only by real income, but also by the price of foreign goods in relation to the price of domestic articles. The omission of the price factor in determining the physical volume of imports would amount to the statement that the demand for imports is completely inelastic with respect to relative prices—an assertion which certainly appears unwarranted.

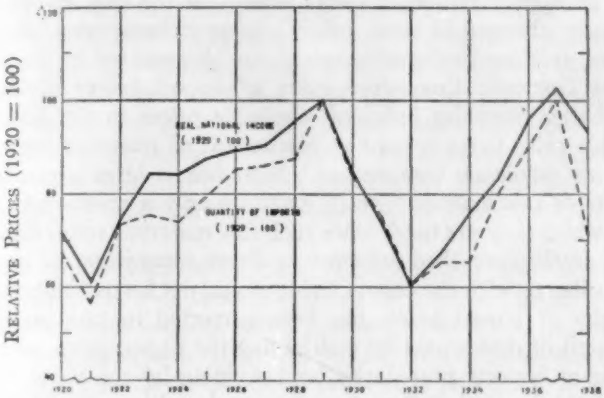

CHART 1

In the present study, an attempt has been made to relate the volume of imports to both real income and relative prices. Before presenting the detailed analysis, it might be helpful to summarize briefly the most important results. First, the total physical volume of imports cannot be related in a simple way to real income *and* relative prices. While real income may account for most of the variation in imports, the remaining variation does not seem to be explained by changes in relative prices. Second, it is believed that the failure of relative prices to account for a larger part of the remaining variation of imports (after allowing for the influence of real income) is due to the fact that tariff changes produced a downward shift in the demand for imports which was related neither to relative prices nor to income. Third, this conclusion is substantiated when duty-free goods are separated from dutiable goods, and a study is made of the demand for duty-free goods alone. The demand for duty-free goods is shown to be related closely to income and to relative prices,

paper and jute textiles are statistically finished goods; for all practical purposes they are raw materials used in the production of other goods.

[3] *Cf.* Paul Samuelson's computation of the American consumption function in A. H. Hansen's *Fiscal Policy and the Business Cycle* (New York, Norton, 1941), pp. 250-60.

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with no apparent downward shift after 1930—the date the tariff was revised upward. The results thus suggest that the change in tariffs at the beginning of the depression had a more restrictive effect upon imports than is commonly supposed.[4]

The Demand for Imports as a Whole

In the analysis of the demand for imports which follows, three time series have been used. The index covering physical volume of imports is the one computed by the Bureau of Foreign and Domestic Commerce. Second, real income is defined as money income (Department of Commerce estimates) divided by the Bureau of Labor Statistics index of the cost of living. (While this is only an approximation, it seems likely that the final results would not be significantly changed if some other income deflator were used.) Third, import prices, relative to domestic prices, are represented by the Bureau of Foreign and Domestic Commerce index of import prices divided by the Bureau of Labor Statistics index of wholesale prices in the United States. The wholesale price index is used as a standard of reference because almost all imports are wholesale transactions.[5] Moreover, a large proportion of imports consists of raw materials which make up only a small part of the final product for which they are used. Since such raw materials reach the retail level only with a much diminished influence, a direct comparison of import prices with retail prices or with the cost of living would not be particularly meaningful. The index of import prices has been corrected to take account of the varying amount of duties paid by multiplying the import price index numbers by the value of imports plus duties, and dividing by the value of imports.[6]

The results of the statistical analysis are expressed in terms of the marginal propensity to import, the income elasticity, and the price elasticity of demand for imports. The marginal propensity to import is defined as the ratio of a change in the value of imports (corrected for price changes), to a change in national income at constant prices, with all other factors remaining unchanged. The income elasticity of the demand for imports is the ratio of the *relative* changes in the quantity of imports to *relative* changes in national income (at constant prices). The price elasticity of the demand for imports is the ratio of the relative change of the quantity of imports to a relative change in relative price (as defined above), with income held constant. A direct computation of income and price elasticities involves the use of logarithms. To avoid te-

[4] Hal B. Lary and associates, *The United States in the World Economy* (Bur. of Foreign and Domestic Commerce, econ. ser. no. 23), p. 54.

[5] A minor deficiency in the available data is that the prices of imported goods enter in the index of U.S. wholesale prices either directly (*e.g.*, rubber, raw silk), or indirectly as costs determining in part the price of goods in the production of which they are used. However, the quantities involved are believed to be sufficiently small, compared with the quantities of "all-American" goods, to permit the use of the index of U.S. wholesale prices as a measurement of movements of domestic prices.

[6] If $P =$ original price index, $V =$ value of imports, and $D =$ duties, the corrected price index $Pc = P \cdot \dfrac{V + D}{V}$.

dious computations, a short-cut method, which gives an approximation of the mean values of the income and price elasticities of all observed levels, has been used.[7]

If changes in the volume of imports in the inter-war period[8] are compared with changes in real national income in a simple correlation, it is found that income changes account for 89 per cent of the variations of the import volume.[9] The average income elasticity is .97. This implies that, within the range of observed real income, a 10 per cent increase in real income resulted in a 9.7 per cent increase in real imports. If relative prices are introduced to account for the changes in imports not explained by income fluctuations (in the form of a multiple correlation between the volume of imports, real income and prices), the results apparently confirm the previous findings, *i.e.*, that the volume of imports depends primarily and almost exclusively on the volume of real income. The coefficient of gross correlation is .948. The partial coefficient on real income is .946, while the partial coefficient on relative prices amounts to only —.31. That would mean that only 10 per cent of the variations remaining after taking account of income changes are explained by changes in relative prices. The regression coefficients of the estimating equation can be transformed in the following economic parameters: the marginal propensity to import is .038, the mean income elasticity 1.00, and the mean price elasticity .09.

The failure of the price factor to account for a substantial part of the variations in the volume of imports apparently is explained by a downward shift in the demand for imports which occurred after 1929, presumably as a result of the tariff changes in 1930. An indication of this downward shift is shown by a comparison of the two peak years 1929 and 1937. It is clear from Chart 1 that real income was higher in 1937 than in 1929. Despite this fact, the volume of imports was slightly lower in 1937 than in 1929. Moreover, this deficiency cannot be attributed to price effects, since import prices relative to domestic prices were actually lower in 1937 than in 1929. Thus both the movement of real income and the movement of prices between 1929 and 1937 should have increased the volume of imports in the latter year. The fact that imports were actually smaller in the latter year therefore substantiates the argument that a downward shift in demand occurred during the early thirties. The argument is further reinforced if the inter-war period is split up into two equally long periods (1922-29, and 1930-37). The statistical study of the first period shows an income elasticity of 1.16 and a price elasticity of .52. Both figures are significant because the coefficients of partial correlation on both, real income and relative prices, are relatively high (.94 and —.65, respectively).

[7] The method is described in Note 1 of Appendix A.

[8] Unless otherwise noted, annual data for 1922 to 1937 have been used. Years preceding that period are believed to be "abnormal" on account of the post-war distortion of supply and demand conditions. The data of the years after 1937 presumably reflect the disturbances of the period preceding the Second World War.

[9] The complete statistical results are presented in tabular form in Appendix A; 0.89 (or 89 per cent) is the coefficient of determination (R^2).

The results apparently indicate that a lack of responsiveness of imports to relative price changes occurred in the period after 1929. This impression is borne out by computations pertaining to the period 1930 to 1937. As long as price effects are neglected the statistical results are still meaningful and appear to confirm the close connection between fluctuations in real income and the volume of imports. Income changes account for 93 per cent of the changes in imports. But the remaining variation cannot be explained by changes in relative prices since the statistical study indicates that only a negligible part of this variation is due to the price factor.[10]

The Demand for Duty-Free Imports

To test the hypothesis that the decline in demand was due to the tariff, imports are divided below into free and dutiable imports, and a study is made of the demand for free imports alone. This study has been made possible by the computation of quantity and price indexes for all commodities which were imported without duty during the inter-war period. The indexes have been derived by the same method and by the same formulas as those used in the construction of the indexes for total imports.[11] In order to eliminate the effects of shifts of commodities from the list of duty-free imports to dutiable imports, and vice versa, only those commodities have been used which have remained duty-free for the entire period under consideration. The quantity index of free imports differs from the index of total imports in one important respect. During the years of high real income in the thirties, duty-free imports attained a higher level than real income, while total imports fell below the "expected" level.

The quantity index of duty-free imports, together with the corresponding index of all imports, is shown in Chart 2. A comparison between the volume of free imports and of total imports indicates that dutiable imports and imports which were shifted from the list of free imports to the list of dutiables must have fallen below the volume which would be expected with a given level of national income at given relative prices. An index of the volume and of the prices of dutiable imports is not available. However, with the aid of the indexes of free and total imports an approximation of the quantity and price indexes for dutiable imports can be established.[12]

A comparison of the three time series (the volume of total, free, and dutiable imports) suggests rather strongly that the changes in the effective tariff rate during the period under consideration were largely responsible for the dissimilar behavior of free and dutiable imports. The tariff changes of 1921-22

[10] Moreover, according to the statistical results, the quantity of imports *rose* with an increase in relative prices. In other words, the demand curve for imports would slope upwards and to the right.

[11] Fisher's "ideal index" which determines year-to-year changes which then have been linked into a chain index. As in the indexes for total imports, general imports were used until 1933, and imports for consumption thereafter. The indexes for free imports include more than 130 commodities.

[12] The derivation of the index of dutiable imports (shown on Chart 2) is described in Note 3, Appendix A.

and of 1930, and also in later years, caused a consecutively wider gap between the volume of free and dutiable imports (as defined above). If the years 1920 and 1921 are omitted as a period which was subject to "unsystematic" distortions of post-war adjustments, it appears certain that between 1922 and 1929 free imports and dutiable imports moved roughly parallel, while in the years after 1929 the gap between the two series was considerably widened. Between 1935 and 1937 dutiable imports appear to have recovered from the preceding depression even more rapidly than free imports. However, it is believed that this was the result of the droughts in 1934 and 1936 which

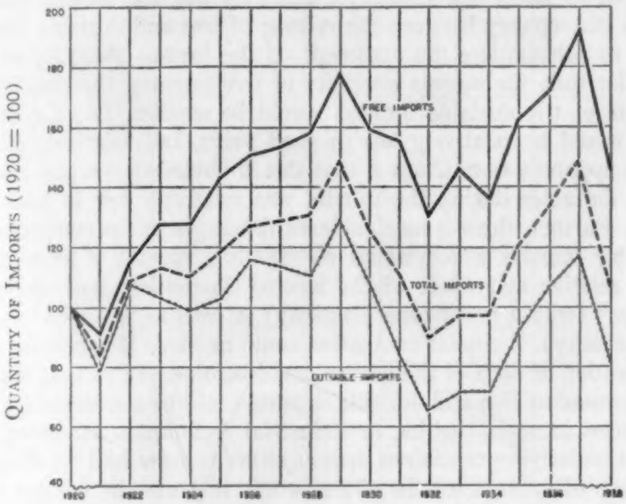


CHART 2

necessitated unusually large imports of corn, wheat, pork, animal and vegetable oils and fats, and food stuffs. Since practically all these imports are dutiable they do not affect the series of duty-free imports. The reciprocal trade agreements also may have contributed to the substantial increases in dutiable imports.

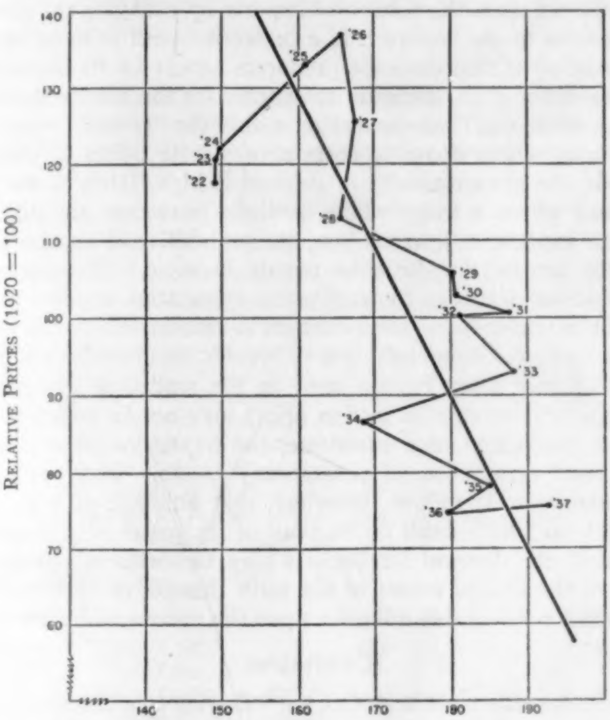
Attention must be called to the fact that not only changes in the tariff rates affect the volume of dutiable imports but that the effect of specific duties grows relatively stronger if the prices of imports fall. Thus, it is not surprising that the volume of dutiable imports was particularly low in the period from 1932 to 1934 when absolute and relative prices of imports were lowest. Occasionally it is argued that the tariff changes after the Fordney-McCumber act of 1922 did not greatly affect the volume of American imports because many duties were already prohibitive, or nearly prohibitive, and because the bulk of the tariff rates remained unchanged. While this assertion may hold true for many commodities, it appears that in some instances the imposition of duties and the reclassification of commodities have definitely caused a

decline in imports. For example, the removal of long-staple cotton from the free-list in 1930, and the imposition of a duty on petroleum and copper (except for refining and reëxport) in 1932 have caused a substantial decline in the import of these commodities far in excess of the severe cyclical drop of imports experienced at the same time.

The general conclusion that the different behavior of dutiable imports was due to tariff changes and the heavier impact of specific duties may be challenged on three grounds. First, it may be argued that the income elasticity with respect to dutiables differs significantly from the income elasticity of duty-free commodities so that it is not the price effects (which are the form in which tariffs affect the volume of imports) but the income effects which caused the discrepancy between the volume of free and dutiable imports. But it is hard to substantiate the argument. If the income elasticity of dutiables were smaller than the income elasticity of free imports, the amplitude of the fluctuations of the dutiable imports would be smaller, *i.e.*, the demand for dutiables would be relatively low in good years, but relatively high in bad ones. It is apparent from Chart 2 that this is obviously not the case; the demand for dutiables during the thirties was relatively low in both good and bad years. Further, there is no significant difference in the composition of free and dutiable imports which would warrant any specific *a priori* assumption as to the relative magnitude of the income elasticities; both groups include "necessities" (with a low income elasticity), as well as "luxuries" (with a high income elasticity). A similar contention could be made if important changes in the composition of each of the groups could be observed so that the difference in the increment of free and dutiable imports could be accounted for by underlying changes in social habits, or industrial techniques. However, all major changes in underlying conditions appear either to have had no effect upon the total volume of imports, or the effects would increase the volume of dutiable imports. Among duty-free imports the most important change was the gradual decline of the demand for raw silk, but it was largely compensated for by an increase of wood pulp imports for the production of rayon. Among dutiable imports, the most discernible change, in addition to the above mentioned temporary disturbance of the drought, was the repeal of prohibition which resulted in the resumption of large imports of alcoholic beverages.

The third objection against the assertion that changes in tariff rates and the heavier impact of specific duties were responsible for the difference in the volume of free and dutiable imports could be raised by pointing out that in some instances the imposition or the raising of a duty (or the increase of the effective specific rates, due to falling prices) on one commodity may lead to a partial substitution of free imports for dutiable imports. For instance, an increase of duties on paper may lead to an increase in imports of pulp wood. In other words, a change of tariffs would cause a decrease of dutiable imports and at the same time an increase of free imports so that the volume of free as well as of dutiable imports is partly determined by the prevailing tariff level. This would mean that the volume of free imports during the late thirties was relatively larger than the volume of dutiable imports because, among other things, they were in part substituted for dutiable imports. With-

out denying the theoretical validity of the argument, it appears that the extent of these "substitution effects" can be minimized. Contrary to a frequently voiced contention that most raw materials are imported duty free and most finished goods pay a duty, a study of the American tariff indicates that many of the raw material imports as well as the imports of finished goods are impeded by tariffs. On the other hand, numerous finished goods are imported free of duty (*e.g.*, agricultural implements, works of art, products of the



Quantity Index of Duty-Free Imports (1920 = 100)

Chart 3

Philippine Islands, etc.). Moreover, the most important increases in tariff rates since 1930 were made on raw materials and crude foodstuffs. Thus, if any substitution of free for dutiable imports took place, it was presumably unimportant.

An indirect proof of the assertion that tariff changes accounted for the relative decline of total imports is the fact that changes in the volume of free imports are satisfactorily "explained" by changes in the real national income and relative price changes. If both factors are considered simultaneously, the following results are obtained: the income elasticity of free imports is .88, the price elasticity .31; the coefficient of gross correlation is .87, the partial coefficients on real income and relative prices .86 and −.72 respectively. From

the estimating equation[13] a statistical demand curve for free imports can be derived. Such a demand curve for the level of real income of 1937, is shown in Chart 3.[14]

The question now arises why the method of statistical analysis does not give any meaningful results with respect to dutiable imports.[15] There is a logical inconsistency in the fact that, on the one hand, the price elasticity of the demand for imports is smaller than unity, and that, on the other hand, the "misbehavior" of dutiables is attributed to changes in tariffs and tariff effects. Tariffs act upon the volume of imports by changing the prices of foreign commodities to the importer. If a protective tariff is to be effective and "useful" in the sense that domestic producers benefit by its imposition, then, close, or reasonably close, domestic substitutes for the foreign goods in question must be available. That means that within the "critical" range of prices, *i.e.*, at levels at which domestic costs approximate prices of corresponding foreign goods, the price elasticity of demand is high. (Only if the protective tariff is raised within a range where domestic producers are still unable to compete with imports, or lowered from one prohibitive to another prohibitive level, can the demand for dutiables remain inelastic.) The reason that the statistical evidence seems to contradict this expectation appears to lie in the fact that the effectiveness of tariff changes is determined by the relationship between the foreign and domestic cost of *specific* commodities and not by the comprehensive unit value indexes used in the statistical analysis. Besides, while a temporary increase in foreign prices may not be sufficient to induce the domestic production of a substitute, the imposition of an import duty with its normal expectation of permanency is more likely to bring forth domestic production. It follows, therefore, that although at a given level of import duties (and with small fluctuations of the prices of commodities with specific duties) the demand for imports may be inelastic, changes in tariff rates, even of the limited extent of the tariff changes of 1930 and later, are likely to exert a considerable influence upon the volume and value of imports.

Conclusions

If the foregoing analysis is accepted, the following conclusions can be drawn:

(1) Duty-free and dutiable imports have shown a marked difference in their behavior during the period under consideration, which make it impossible to establish a constant relationship, suitable for extrapolation, between real income, relative prices, and the volume of total imports.

[13] Shown in Appendix A.

[14] The straight line is the graphical presentation of the estimating equation. The points in the scatter diagram, connected in chronological order, were derived from the simple correlations between free imports and real income, and relative prices and real income. The deviation of the observed values from the estimated values (on the basis of the simple correlations) were then related to the 1937 income level by subtracting the price and quantity deviation from the corresponding estimated value for 1937, and adding the deviations for each of the preceding years.

[15] If the volume of dutiable imports is correlated with real income and relative prices, a positive price elasticity results.

(2) Despite the apparent shortcomings of the statistical investigation, it seems reasonably certain that the income elasticity of American imports is close to unity; all estimates show numerical results around 1.0.
(3) The price elasticity for duty-free imports is probably between .3 and .5.
(4) As far as the effects of relative price changes on dutiable imports are concerned, no meaningful information can be established from the data available at present. Presumably a study of the relative cost structure in this country and abroad with respect to particular commodities and commodity groups would be necessary before any useful conclusions could be drawn.

J. HANS ADLER*

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APPENDIX A

Statistical Results

Symbols: M' = Quantity of total imports, in index form (1935–39 = 100)
M = Total imports, in millions of dollars, at constant prices (1935–39 = 100
M_f = Quantity of duty-free imports, in index form (1920 = 100)
Y = National income, in billions at constant cost of living (1935–39 = 100)
P = "Relative prices": price index of total imports, corrected for duties, divided by U. S. wholesale price index (1935–39 = 100)
P' = "Relative prices" of duty-free imports (1920 = 100)
R = Coefficient of gross (simple or multiple) correlation
r_Y = Partial correlation coefficient of imports on income
r_P = Partial correlation coefficient of imports on relative prices
m = Marginal propensity to import
E_Y = Income elasticity
E_p = Price elasticity

	Estimating Equations:	R	r_Y	r_P	m	E_Y	E_P
1922–37:	$M = 2.995 + 1.592Y$	.942	—	—	.0371	.968	—
	$M' = 70 + 37.06\ Y$						
	$M = 8.233 + 1.652Y - .0712P$	.948	.946	−.310	.0385	1.005	.092
	$M' = 192 + 38.47\ Y - 1.658\ P$						
1922–29:							
	$M = -10.779 + 1.800Y$	.906	—	—	.0419	1.111	—
	$M' = -251 + 41.92\ Y$						
	$M = 35.019 + 1.857Y - .357\ P$	.947	.945	−.647	.0432	1.157	.517
	$M' = 816 + 43.25\ Y - 8.32\ P$						
1930–37:							
	$M = 3.263 + 1.610Y$	.963	—	—	.0375	.964	—
	$M' = 76 + 37.49\ Y$						
	$M = -19.648 + 1.601Y + .237\ P$	.971	.970	[a]	.0375	.964	[a]
	$M' = 457 + 37.48\ Y + 5.51\ P$						
1922–37:							
	$M_f = 64.912 + 2.317Y - .513\ P$	.866	.860	.715	[b]	.884	.308

[a] The result indicates a positive instead of a negative relationship between quantity and price.

[b] Since the value of all duty-free imports is not available, the marginal propensity to import cannot be derived.

Note 1. The approximation of the income elasticity is derived as follows:

$$E_Y = \frac{\frac{dM}{M}}{\frac{dY}{Y}} = \frac{dM}{dY} \cdot \frac{Y}{M} .$$

$\frac{dM}{dY} = b_{12}$ in the simple, and $b_{12.3}$ in the multiple correlation. If b_{12} or $b_{12.3}$ is multiplied by $\frac{\overline{Y}}{\overline{M}}$, a measurement of the income elasticity, pertaining to the mean range of the observations included in the computations, results.

Similarly,

$$E_P = \frac{\frac{dM}{M}}{\frac{dP}{P}} = \frac{dM}{dP} \cdot \frac{P}{M} ; \qquad \frac{dM}{dP} = b_{13.2} .$$

Thus,

$$E_P \text{ (for the mean)} = b_{13.2} \cdot \frac{\overline{P}}{\overline{M}} .$$

Note 2. The approximation of the indices of dutiable imports has been obtained in the following fashion: The value of all commodities included in the indices of free imports has been deducted from the value of total imports. Since the indices of free imports do not comprise all free imports but only a large (and representative) sample of about 70 per cent, the indices for dutiable imports actually are indices for "imports not included in the indices for free imports." On the basis of the argument that the indices of total imports must be the average of the index numbers of free and dutiable imports and because the value of the commodities included in the indices of free imports amounts on the average to 50 per cent of the value of total imports, a first approximation of the indices (price and quantity) of dutiable imports was obtained

$$P_T = \frac{P_F + P_D}{2} ; \quad P_D = 2P_T - P_F, \quad \text{also} \quad Q_T = \frac{Q_F + Q_D}{2} ; \quad Q_D = 2Q_T - Q_F$$

in which P stands for price, Q for quality, and the subscripts T, F, and D for total, free, and dutiable imports, respectively. The results were then corrected to make them conform to the condition implied in the "ideal index," that price times quantity equals value. The difference between the product of price times quantity of the first approximation and the corresponding index number of the value were distributed proportionately—a confessedly arbitrary procedures. The resulting indices for dutiable imports should be interpreted with caution. However, they are believed to serve the purpose of establishing a crude approximation.

APPENDIX B
Statistical Data

TABLE I

Year	(1) Value of Imports[a] in Millions of Dollars	(2) Value of Duty-Free Imports[b]	(3) Quantity of Total Imports (1920=100)[c]	(4) Quantity of Duty-Free Imports (1920=100)	(5) Quantity of Dutiable Imports (1920=100)[d]
1920	5,278	1,761	100	100	100
1921	2,509	971	84.1	91.7	79
1922	3,113	1,241	109.1	115.4	108
1923	3,792	1,592	112.5	127.7	103
1924	3,610	1,585	110.2	127.9	99
1925	4,227	2,100	118.2	143.0	103
1926	4,431	2,214	127.3	150.3	116
1927	4,185	1,985	128.4	153.5	114
1928	4,091	1,933	130.7	158.3	111
1929	4,399	2,053	148.9	177.4	129
1930	3,061	1,454	126.1	159.2	108
1931	2,091	1,049	111.4	153.3	84
1932	1,323	694	89.8	130.2	66
1933	1,450	769	97.7	146.3	72
1934	1,636	822	97.7	136.9	72
1935	2,039	989	120.5	162.7	93
1936	2,424	1,146	134.1	172.2	107
1937	3,010	1,490	148.9	192.3	117
1938	1,950	970	106.8	146.2	82

[a] General imports until 1933; imports for consumption thereafter. The quantity and price indices compiled by the Bureau of Foreign and Domestic Commerce pertain to these value figures.

[b] Value of imports included in the quantity and price indices of free imports. The indices account for approximately two-thirds of imports which remained duty-free during the entire inter-war period.

[c] Shifted from original base 1923–25=100; computed by Bureau of Foreign and Domestic Commerce.

[d] For explanation of this index which represents a rough approximation only, see Appendix A.

TABLE II

Year	(1) Unit Value (Price) of Total Imports (1920 = 100)[a]	(2) Unit Value (Price) of Duty-Free Imports (1920 = 100)	(3) Unit Value (Price) of Dutiable Imports[b] (1920 = 100)	(4) U.S. Whole-sale Prices (1920 = 100)[c]	(5) Cost of Living Index[d] (1935–39 = 100)	(6) U.S. National Income (in billions of current dollars)[e]	(7) "Real" National Income (in billions of 1935–39 dollars)[f]
1920	100	100	100	100	143.2	69.7	48.7
1921	56.8	60.1	55	63.2	127.7	52.6	41.2
1922	54.2	61.1	49	62.6	119.7	60.4	50.5
1923	63.9	70.3	61	65.2	121.9	80.0	57.4
1924	61.9	69.4	58	63.5	122.2	70.0	57.3
1925	67.7	82.2	59	67.0	125.4	74.6	59.5
1926	65.8	82.9	54	64.8	126.4	76.8	60.8
1927	61.3	72.6	55	61.8	124.0	76.2	61.5
1928	59.4	67.7	55	62.6	122.6	80.1	65.3
1929	56.1	64.1	52	61.7	122.5	83.3	68.0
1930	45.8	50.5	44	56.0	119.4	68.9	57.7
1931	35.5	37.8	35	47.3	108.7	54.5	50.1
1932	27.7	29.4	27	42.0	97.6	40.0	41.0
1933	27.7	29.0	27	42.7	92.4	42.3	45.8
1934	32.3	33.0	32	48.5	95.7	49.5	51.7
1935	32.3	33.6	32	51.8	98.1	55.7	56.8
1936	34.8	36.6	34	52.3	99.1	64.3	65.5
1937	38.7	42.3	37	55.9	102.7	71.5	69.6
1938	34.8	36.2	34	50.9	100.8	64.2	63.7

[a] Shifted from original base 1923-25 = 100. (Bureau of Foreign and Domestic Commerce.)
[b] See footnote [d] of Table I.
[c] Shifted from original base 1926 = 100. Source: Statistical Abstract of the United States, 1941, p. 354.
[d] Cost of goods purchased by wage earners and lower-salaried workers in 34 larger cities combined. Source: Statistical Abstract of the United States 1941, p. 360.
[e] Department of Commerce estimates.
[f] Column (6) divided by Column (5).

J. HANS ADLER

Cost Accounting and Statistical Cost Functions

Several writers[1] have expressed some dissatisfaction with the results of the cost studies which have been made by Messrs. Joel Dean[2] and Theodore

[1] See Reinhold Noyes, *The Relation of Cost to Output in a Leather Beltshop*, Section II (New York, Nat. Bur. of Econ. Research, Technical Paper No. 2, 1941); Hans Staehle, "Statistical Cost Functions—Appraisal of Recent Contributions," *Am. Econ. Rev.*, Vol. XXXII, No. 2 (June, 1942), pp. 321-33; Caleb Smith, "Cost Output Relation for U. S. Steel Corporation," *Rev. Econ. Stat.*, Vol. XXIV, No. 4 (Nov., 1942), pp. 166-76.

[2] Joel Dean, *The Relation of Cost to Output in a Leather Belt Shop* (New York, Nat. Bur. of Econ. Research, Technical Paper No. 2, 1941); and Joel Dean, *Statistical Cost Functions of a Hosiery Mill* (Chicago, Univ. of Chicago Press, 1941).

Yntema.[3] The linear cost functions found in their cost studies are frequently attributed to linear biases inherent in the statistical techniques employed in processing the data. It is not intended in this note to deny or affirm the validity of these contentions about the statistical methods used; but it is intended to show that the data employed were such as to give a bias in favor of linearity.

I

The chart on page 240 of Yntema's U.S. Steel study[4] shows a linear cost function. This function was computed from data to which no statistical corrections had been applied. The chart on page 251 of the U.S. Steel study shows the same data after statistical processing. The only observable changes are a reduction in dispersion and a change in slope. This would seem to indicate that these data, obtained from the cost accounting records of U.S. Steel, tended toward linearity. That a linear bias does exist in cost accounting data can be best illustrated by a hypothetical case.

Suppose that a manufacturer uses a pure standard cost system in his cost ledgers. Fixed charges (*i.e.,* standard costs) for labor, material and overhead would be placed on the cost ledgers for each unit of output produced during the month (or accounting period) regardless of the level of output. Any variation from these standard costs would be put in a variance account. The balance remaining in the variance account at the end of the year would appear in "other deductions from income" on the annual profit and loss statement.[5]

Out of such data, nothing but a linear cost function could possibly emerge, because the cost ledgers would show constant unit cost which is equivalent to cost directly proportional to output (or a linear cost function).

Generally, accountants do not use a pure standard cost system such as the one described above, but the method of distributing a large part of the total cost is analogous. Overhead and administrative cost which represent an ever-increasing part of total costs,[6] and in some cases represent over half of all costs, are usually distributed by accountants in a linear fashion.[7] To escape from these (and other) difficulties Yntema froze such figures as interest and depreciation. Dean, on the other hand, eliminated similar charges (*e.g.,* administrative costs in his leather beltshop study).

II

Because such an important part of the costs was either frozen or distributed linearly in these studies, it appears to be possible that significant elements of

[3] Theodore Yntema, *U. S. Steel Corporation,* T.N.E.C. Papers, Vol. I.

[4] *Ibid.*

[5] J. J. W. Neuner, *Cost Accounting* (Chicago, Irwin, 1940), p. 489.

[6] F. C. Mills, *Prices in Recession and Recovery* (New York, Nat. Bur. of Econ. Research, 1940), p. 328.

[7] That is, a fixed overhead charge per unit of output or per labor dollar. (Note that labor dollars are frequently a standardized cost.)

cost variation have been smeared into linearity, to the point where the results begin to lose their meaning as total cost functions.

It is of the essence to remember that the accountant's conception of overhead cost is not identical with the economist's conception of overhead cost (*i.e.*, supplementary costs).[8] The accountant includes not only "supplementary costs" in overhead but also any other costs which cannot be distributed with ease and/or economy.[9] It is this accountant's mixture of variable and fixed costs which seems to be responsible at least in part for the linear cost functions.

III

Although the results obtained in these studies do not conform precisely to neo-classical conceptions of cost functions, it is not intended to state here that the results of the statistical cost studies are theoretically incorrect. It seems to be quite likely that many cost functions are linear within the relevant ranges of output, becoming curve-linear upward only when capacity is approached. But it does not seem safe to assume that the results of these studies confirm that hypothesis. Accounting data with their hazy rubrics and linear biases seem incapable of producing anything but a linear cost function.

It perhaps goes without saying that when one studies cost functions one gets into an area of expectations with its unpleasant companions, uncertainty and indeterminateness.

EVERET STRAUS*

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The Hours of Work and Full Employment

The prospects for maintaining substantially full employment at a standard 40-hour week in the post-war years must be regarded as dubious, if not downright poor. This is the clear implication of the final paragraphs of the careful study by Hagen and Kirkpatrick.[1] They conclude, albeit in guarded terms, that we shall enjoy continued full production and full employment only by grace of "fortuitous good fortune" or by "extremely wise social engineering."

[8] J. M. Clark, *Economics of Overheard Cost* (Chicago, Univ. of Chicago Press, 1924), pp. 175-203.

[9] R. F. Harrod, "Price and Cost in Enterpreneur's Policy," *Oxford Econ. Papers*, No. 2. In the investigations conducted at Oxford it was found that ". . . direct cost often excluded a number of charges which would properly rank as prime costs; and there was often an arbitrary or conventional element in the process by which 'on cost' per unit was deducted from total overheads."

[1] "National Output at Full Employment in 1950," *Am. Econ. Rev.*, Vol. XXXIV, No. 3 (Sept., 1944), at pp. 494, 495.

Neither of these aids can be counted upon—the second perhaps less than the first.

The doubts of Hagen and Kirkpatrick are shared by many others.[2] We thus find ourselves in the following awkward dilemma:

A. High-level employment is a paramount necessity in the post-war world. (Hagen and Kirkpatrick say categorically that without it democracy cannot survive.)

B. Full production—*i.e.*, the output of full employment at standard hours—will probably not be sustained in the future, as it has not been in the past generation. We are more likely to repeat the experience of 1940, which combined a record high in national output with large-scale unemployment.

Because full production is clearly the best means of attaining full employment, it is natural to fasten our attention exclusively upon it. But if full production in peacetime is so difficult to maintain that there is great danger of our failing in the attempt, then simple prudence requires that we explore all alternative roads to high-level employment.

When viewed arithmetically the number of unemployed is readily seen to depend on four independent[3] factors, of which the level of gross output is only one. The formula, on an annual basis, is quite simple, *viz:*

$$\text{Number of Employed} = \text{Labor Force} - \frac{\text{Gross Product}}{\text{Average Output per Hour} \times \text{Average Hours Worked per Man-Year}}$$

Assuming that at a given time this equation shows a substantial number of unemployed, the quantity can be reduced by changing any one of the four factors on the right-hand side—*i.e.*, (a) by increasing gross product, or (b) by decreasing the labor force, or (c) by decreasing output per hour, or (d) by decreasing the hours of work.

There are thus three mathematical approaches to full employment in addition to the obvious one of full production. Of these, decreasing the labor force is more important theoretically than in practice. It is true that the percentage of our total population seeking work has moved counter to its logical direc-

[2] *Cf.* the calculations in *Business Week*, Oct. 25, 1944, pp. 9, 10; conclusions of L. L. Schellbach, editor, Standard and Poor's Trade Service, in *N. Y. World-Telegram*, Sept. 9, 1944, p. 11; statement in *The Kiplinger Letter*, Sept. 12, 1944, that labor is expecting large unemployment after the war; etc.

[3] "Independent" is used here in the sense that one factor is not *determined* by the others; hence, it is possible to reduce the number of unemployed, on an over-all basis, by changing any one of the four factors separately. As Professor Yoder points out in his appended note, a change in one factor may produce partially offsetting or intensifying changes in others, so that the relationship between unemployment and the size of each factor may be curvilinear rather than rectilinear. This circumstance poses one of several technical problems of control, but it does not affect our broad conclusions.

tion; for it has been increasing moderately in recent years, whereas the growth of our wealth and living standard should have permitted a larger percentage to abstain from work.[4] But the steps that might be taken to correct this condition are either fiscally unsound, or else they would meet with such bitter opposition that their minor contribution to reducing unemployment would scarcely be worth the trouble.[5]

The solution by means of reduced output per hour makes arithmetical but not practical sense. Instead of this recourse, it is obviously more rational to maintain efficiency and reduce the work-week. It is well to recognize, however, that *because workers have not been able to depend upon other solutions of the unemployment problem,* they have perforce been receptive to the ca' canny philosophy. We should not blink the fact that, regardless of its long-run benefits, our increasing manhour productivity has constantly aggravated the *current* difficulty of maintaining full employment. To the extent that this proves true in the future the perverse doctrine of consciously holding back production is certain to make headway among workers.

The remaining approach—reduction in the hours worked—deserves far more careful attention than it has received. Because it is equivalent to a share-the-work philosophy it is viewed with hostility as defeatist and summarily dismissed. This attitude is quite illogical. Granted that full employment at a 35-hour week is less desirable for the nation than full employment at a 40-hour week, it does not follow at all that full employment at 35 hours is worse than seven-eighths employment (7 million unemployed) at 40 hours. Furthermore, shorter working hours have always followed naturally from increased productivity. Since higher output per manhour is expected in the future—and, in fact, creates the menace of post-war unemployment—it would be natural rather than defeatist to accept its corollary of still shorter hours. These are more truly the fruits of technological victory.

It is neither necessary nor desirable for a sound economy that hours of work should decline *pari passu* with increase in productivity. But this inverse ratio clearly indicates the outer *limit* of admissible adjustment to rising output per manhour. The indicated principle is a simple one. To the greatest extent permitted by patterns of consumption, let us take our gain from increased productivity in larger output and better living standards. To the extent this is not feasible, let us take the balance of our gain in shorter hours. (Failing that, we shall take it in unemployment, and the "gain" becomes a tragic loss.)

This principle may readily be applied quantitatively to the figures of Hagen and Kirkpatrick. Their median forecast for full employment in 1950 on a 40-hour basis is a gross output of 146.5 billion dollars *versus* 87 billions in 1939. (Both figures are in 1939 dollars and exclude interest on federal debt.) Of this total gain of 67 per cent, just about half would be due to more workers

[4] Actual percentage of population in the labor force was 37.3 per cent in 1900, 39.5 per cent in 1920, 40.1 per cent in 1940. (*Stat. Abstract*, 1942, pp. 56-57.) Hagen's and Kirkpatrick's estimate of a 60,000,000 labor force in 1950 works out at 42.6 per cent of the projected population.

[5] Obvious examples are the Townsend Plan and job discrimination against women with husbands working. The immigration quotas adopted in 1921 and 1924 were largely motivated by a similar purpose.

and half to higher average productivity. It follows that, if we are willing to accept 1939 as a floor, we should be prepared to adjust our economy to any going level of gross output, as here defined, between 116 billion dollars and 146 billions, maintaining substantially full employment at any such level by suitable adjustments of the work-week.

This means that *at the minimum* we should not fall below the 1939 annual output per worker (attained in 1950 at a 30-hour week), but at that minimum we should have only 2 million "frictionally" unemployed, instead of 10 million as in 1939. Nothing in this arrangement would prevent us from aiming at the maximum gross product of 146 billions, or more, which would permit full employment at a 40-hour standard week and an increase of one-third in the average output and real earnings of all workers. Nor would an intermediate adjustment of working hours, say to a 120-billion-dollar product, interfere in any way with a later enlargement of both product and work-week to the maximum figure.

The main purpose of this approach is to introduce an element of flexibility, or a "relaxation principle," into our post-war economy, so that our democratic institutions will not have to stand or fall on our ability to maintain a real national product 67 per cent higher than in 1939. The mechanics of adjusting the work-week to the going rate of national product involves various problems, and no technique may be expected to do it perfectly. But a fair approximation may be achieved by the use of relatively simple and familiar devices of control. The fundamental need here is for agreement between leading employers and labor unions on the basic principles of flexibility—and upon the related wage policies.

The question of wages presents the chief obstacle to the effective use of the hours-of-work approach to full employment. The announced attitude of the unions is that shorter hours must be accompanied by a corresponding rise in the hourly rate. As a result, employers are vehemently opposed to the "share-the-work theory" because they see in it only a lever to raise their wage costs. This familiar conflict of interest over hourly rates should not be permitted to render useless a valuable tool of economic adjustment, the intrinsic merits of which are quite independent of wage controversies. Here is an area in which joint policy making by leaders of labor and of business can contribute greatly to the avoidance of mass unemployment.

There is a patent absurdity in the prevalent view that our increased productive powers must bring us either dazzling prosperity or devastating unemployment after the war. One would think that we were about to leave our familiar world of compromises and were almost literally heading for an economic heaven or hell—without knowing which. The bald choice being offered us would be a particularly unhappy one if, as seems probable, the ideal of sustained full production may prove unattainable. Economists should ponder the wisdom of having at least two strings to the bow of high-level employment, the first being full production and the second being flexible hours of work.

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Comment on Mr. Graham's Note

There is little room for serious disagreement with the thesis that working hours represent one of the several controls on output. Moreover, there is good reason to stress and emphasize the desirability of a well-considered use of this control as a counterbalance opposed to unemployment, which is also an obvious control over output.

There is, however, a serious deficiency in Mr. Graham's analysis. That deficiency stems from one of the stated premises upon which the whole analysis rests. It represents an error in the formula described by Graham as determining the volume of employment. Graham states that "the number of unemployed is readily seen to depend on four *independent* factors" (italics mine). These four are the labor force, gross product, average output per hour, and average hours worked per man-year. The conclusion is reached that, of these variables, that which can be controlled and when necessary reduced with least injury to the nation's social, political, and economic systems is the last, that is, average hours. In effect Graham concludes that hour reduction is a desirable alternative to something less than full employment and that the one is a simple substitute for the other.

The necessary resort to averages in such equations is probably responsible for at least part of the confusion that results in regarding these factors as independent. Because it is always easier to think of averages as typical, implications of such oversimplified relationships are also conceived and stated in terms of a general or average result. Thus, popular understanding of Graham's suggestion would unquestionably conclude that unemployment could be rather simply eliminated by a sort of nation-wide sliding scale of working hours, in which hours were reduced throughout industry whenever unemployment showed signs of increasing and, presumably, hours were expanded whenever there was prospect of manpower shortage. During the war, popular acceptance of this level of understanding is implicit in the imposition of the minimum wartime work-week of 48 hours by the War Manpower Commission. As hours were extended, output was expected to show a proportionate increase. The natural expression of such understanding in peacetime would be an extension of the Fair Labor Standards act to include provision for further control of hours as dictated by supplies and demands in labor markets throughout the nation.

The basic shortcoming in all such analysis lies in the fact that two of the variables mentioned as independent are not independent. Output per hour and average output per hour also are not unrelated to the number of hours worked. The hourly output of individual workers and of industrial units as a whole varies appreciably with variations in the numbers of daily or weekly working hours, so that variations in the pattern of working hours may have effects quite different from those forecast on the assumption that the volume of output will reflect directly the number of hours worked.

The most spectacular aspects of this relationship are perhaps to be noted in the experiences of several concerns during the depth of the depression in the early 1930's. In a number of cases, hours were reduced to reduce output, but

production per hour increased in greater proportion than the reduction in hours. There are rather obvious explanations, among them the fact that many employees, compensated on piece-work or incentive wage bases, sought to maintain weekly earnings. More important, however, is the fact that the reduced hours, in some cases, represent a more efficient method of utilizing the human factor in production.

These are, however, only the more spectacular evidences of the relationship between hours of work and output. In many other instances, a somewhat less striking result of reduced hours has been a much greater, disproportionate, reduction in output. That is not as spectacular primarily because it confirms entrepreneural expectations. If management assumed it would get more output per hour from shorter work-days or work-weeks, it would, in times when manpower is readily available, be forced by competitive demands for efficient use of manpower to move toward the more productive work-day or work-week.

It follows that, unless it be assumed that management is oblivious to this relationship between length of work-day or work-week and hourly output, and unless these competitive forces have not been effective, there is a continuing economic pressure in competitive industry toward that length of work-day and work-week which is most efficient. The long-run tendency must be assumed to operate in a manner that makes such a disposition of manpower in terms of its efficient utilization as to secure maximum hourly output consistent with continued day-to-day and year-to-year use of the labor factor.

To the extent that this tendency is effective, any arbitrary reduction in hours undertaken to reduce output would obviously tend to have a greater than proportionate effect on output. It might be expected to fall short of its objective because, resulting in less efficient operation and higher costs, it would further reduce consumption, production and employment.

Output per hour is not a fixed, unvarying, and isolated factor in the formula for employment. The relationship between hours of work and output is real. That relationship is not necessarily rectilinear. Nor can society be assumed to be ignorant of the curvilinear nature of this relationship. Programs designed to alleviate unemployment by controlling hours of work must, therefore, clearly recognize these limitations.

DALE YODER*

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Correction

We regret that the letter "l" was omitted in printing the name of Professor George N. Halm in a footnote on page 81 of the March number.

BOOK REVIEWS

Economic Theory; General Works

Economics Is an Exact Science. By JEROME LEVY. (New York: New Econ. Library. 1943. Pp. xv, 503. $3.50.)

This book, a very difficult one to review, compares the economic system to a "machine" consisting of the following parts: the working class, the investing class, the money-lending class, land, the consuming class, profits, the monetary system, taxes, self-interest, the government. The terms are not always used in the established economic sense. The relationships contemplated in a sort of *tableau économique* are all assumed linear.

Another part of the book deals with "just" wages, "just" profits, the efficient functioning of land, consumption, money, taxes, and profits. There is not much indication of the general social philosophy on which the "justice" is based. In some parts of the book it appears that the author is a sort of single taxer.

This book is evidently written by somebody ignorant of all but the most primitive economics and of the fundamental problems involved in economic policy. I cannot see that it establishes economics as an exact science nor that it contributes anything in any way. It is astonishing that it should have been written and nothing short of amazing that it could find a publisher, especially at the time of an acute paper shortage.

GERHARD TINTNER

Iowa State College

National Economies

China Enters the Machine Age. By KUO-HENG SHIH. (Cambridge: Harvard Univ. Press. 1944. Pp. xxiv, 206. $2.50.)

The purpose of this monograph is twofold: to trace the sources and backgrounds of industrial manpower in Free China, and to examine, in terms of the attitudes and aspirations of the industrial workers, the changes that industrialization is bringing about in the traditional structure of the social order. The inquiry is described as a "laboratory experiment," covering a single government-owned and operated factory in Kunming, which "does not regard profit making as its sole concern" and produces electrical supplies, thus requiring comparatively high types of skills. The author adds that the factory

"is the second largest in Kunming, and it is known for its sound management." Such a factory cannot reasonably be regarded as typical of the interior of China, and this fact clearly delimits the validity of the study.

Actually, the author points in the right direction, when he states that "as compared with other difficulties, such as lack of capital, communication and supply of raw materials, it seems that [the lack of sufficient trained industrial workers] may become a bottleneck." From this standpoint, the monograph is a definite and valuable contribution to an understanding of what is involved in a rapid transition from an agricultural to an industrial economy. In ten chapters, the author discusses the geographic and economic backgrounds of laborers and the social relations between immigrant skilled workers from old industrial centers and local semi-skilled or unskilled workers, the psychological reaction of new workers to factory life and their relative working efficiency, the wage levels and workers' budgets, the social environment and morale, and the causes of labor instability. The monograph gives indication of a critical lack of political and social consciousness on the part of the workers, without any effort being made by the management or the government to arouse it. The traditional concept that "skill implies secrecy" dominates the atmosphere of the factory. The managerial, skilled, semi-skilled and unskilled groups are strictly separate, and the paternalistic set-up, with different quarters and facilities for the various groups, tends inevitably to consolidate their relations along the lines of a closed caste system. At present, this system is an effective barrier against an efficient utilization of China's manpower resources for industrial and war purposes. The problem is likely to grow in intensity after the liberation of the occupied provinces, when China will be called upon to provide the masses of skilled and semi-skilled labor necessary for manning and operating the industries of the coastal areas and Manchuria. This monograph raises fundamental issues of labor training and management, which are strikingly absent from the many plans of post-war industrialization which have so far come out of Chungking.

FRANK M. TAMAGNA

New York

The Indian Rural Problem. By SIR MANILAL B. NANAVATI and J. J. ANJARIA. (Bombay: Indian Soc. of Agric. Econ. 1944. Pp. vii, 422. Rs. 8, or $3.00.)

This is the first study of the newly organized Indian Society of Agricultural Economics under the presidency of Sir Manilal B. Nanavati. The Society plans to issue a series of general monographs on the rural problems of the different Indian provinces and states which will provide factual material and interpretation for both the scholar and the lay reader. The object of the present study is to review the Indian rural problem in its varied general aspects so as to enable the reader to visualize the problem as a whole and to sketch out a general line of policy which the state must follow.

It is well known that India is predominantly agricultural and that 87 per cent of the Indian population is classified as rural. More than 285 millions out of a total of more than 400 millions depend on agriculture for their meagre livelihood. These agriculturists are composed of widely different groups. There

are big landowners and titled persons, some whom possess estates as large as some small European states. There are intermediaries who live in luxurious urban villas on incomes derived from land which they seldom visit or take interest in, except to collect the money as typical absentee landlords. Then there are peasants who own plots of land and are physically engaged in its cultivation. Finally, there are millions of landless laborers who work on the land for incredibly low wages. The last two constitute the real agricultural population of India. It is these classes that produce the country's food, raw materials and primary products and thus constitute the backbone of the national economy. And it is the problems of these peasants and agricultural laborers which constitute the Indian rural problem.

The Indian peasant is born in debt, lives in debt and is buried in debt. So great is Indian rural indebtedness that it has been the subject of numerous official inquiries for more than a generation, but no one has heard of any redress. The farm laborer's average daily wage is less than six cents. His shelter is a thatched hut in a village remote from modern civilization and devoid of even the most elementary requisites of modern hygiene and sanitation. If he is not a chronic sufferer from some disease, he is an exception. The food he consumes is the coarsest and the least nutritious, making him a victim of malnutrition. The inadequacy of his clothing can be seen from the fact that the annual per capita consumption of textiles for the country as a whole is only 16 yards. Whatever the view taken, the Indian peasant occupies the lowest rung of the ladder. There is no organization to champion his cause and no "farm *bloc*" to plead for him in India's legislatures.

The average size of the Indian holding is about 2.5 acres. With such low acreage the use of fertilizer is unknown. Mechanization of agriculture is impossible. Lack of scientific breeding of cattle and the preservation of unwanted cattle (for religious reasons) have made Indian bovine wealth (India has a third of the world's total cattle population) a source of unprofitable misery to the peasant. He is illiterate, lacks credit and easily gets into the vise of the village moneylender. Soon unpaid interest accumulates, the farm is mortgaged and finally the peasant is evicted from his land. But if he should continue to cultivate, there are no credit, marketing and storage facilities. Indian agriculture is a matter of deficit economy; it has become a tragic way of life and not a worth-while business proposition. Another factor is the government's land revenue policy, which is a combination of medieval feudalism, benevolent despotism and incoherent diversification. Added to these are the problems of subdivision and fragmentation, low productivity, underemployment and the want of subsidiary occupation for the peasant. This list does not exhaust the problems of the Indian peasant but any addition to it will only make it a lament. There is no cause and effect, for it is difficult to decide what maladjustment leads to what malady. It is a confusing, vicious circle.

The volume under review is an excellent, comprehensive and sane examination of all these problems and more. Its thirty-odd chapters examine practically every aspect of the Indian rural problem and furnish a wealth of statistics and numerous comparisons with other parts of the world. Part I of the book states the facts of the situation without comment. Part II reviews

the activities of the government departments and public and semi-public agencies and attempts to assess the adequacy of the work so far done. Part III lays down a policy and a plan. The following list of chapter headings will indicate the subjects discussed and the scope of the volume: Environment and Resources; Population; Agriculture; Food Supply and Nutrition; Social Services in India; the Evolution of Indian Agricultural Policy; Crop Improvements and Technical Research; the Land Problem; the Size of Holdings; Rural Engineering; Agricultural Finance and the Coöperative Movement; Money-Lender-Finance and Debt Legislation; the Reform of the Land System; Surplus Population and Rural Unemployment; and Prime Agencies of Reform.

The authors do not merely narrate the problems and the evils. Throughout they offer solutions and plead for reform and freedom to reform. Despite the depressing tone of their book they conclude with an optimistic observation:

> There are not merely vast natural potentialities in this country; there is also plenty of talent and capacity for hard work and for sacrifice. So far all this has run to waste. If India's resources, natural and human, are marshalled and directed along right channels there is every reason to be hopeful about the question we have posed at the commencement of this epilogue. The Indian rural problem is a challenge to the rulers and to the ruled and it is a challenge that can be met only when there is a new awakening and a new readiness to work and sacrifice on the part of all concerned. Granted this basic requirement, all other considerations, funds, technical equipment, expert knowledge, are minor; they will come. Others have done it before us. We in India also can and we must. And probably as we proceed, we shall continually discover new springs of action, new avenues to success, new ways of organization and achievement so that the solution of the problem which looks so vast and intractable today may, when we work at it, prove to be not so superhuman a task after all, and the joy of something done, and done well, may give our nation the courage and enthusiasm to take on more formidable tasks, not for power and wealth alone but for culture and light, which is our true heritage. Man's spirit—what can it not triumph over?

Through this remarkable study the authors have laid every student and well-wisher of India under their obligation and it is hoped that the book will remain not merely as a brilliant study but that its plans will be put into effect by whatever government may sit in New Delhi when this war is over. It looks almost ungracious to complain about the lack of complete and uniform citations in footnotes, the absence of a bibliography, and worst of all, an index. This is said to prevent similar omissions in future volumes of the Indian Society of Agricultural Economics.

S. Chandrasekhar

Washington, D.C.

Brazil on the March. By Morris L. Cooke. (New York: McGraw-Hill. 1944. Pp. xiv, 303. $3.00.)

This book, one of several published recently on Latin America, was written by the head of the American Technical Mission to Brazil. Its objectives are

to inform nontechnical readers of the development of present-day Brazil; to indicate the many problems confronting Brazil, "a nation girding itself for a far-flung industrialization"; and to educate the American people to the advantages and possibilities for coöperation between the two countries in order to secure their support for "any plan uniting our two nations in a comprehensive and mutually advantageous understanding" (pp. x-xi).

The book is based on the confidential Report of the Mission (4 volumes). Many of the factual data, descriptive materials, recommendations and conclusions are taken verbatim from the Report. The Mission was organized in the summer of 1942 and submitted the bulk of its report in December of that year and the remainder early in 1943. To appreciate the importance of the Mission one must remember that the economy of Brazil is one of the least self-sustaining; the well-being of the country depends very largely on successful export of a few commodities (*e.g.*, coffee, cotton and meat) and on adequate import of coal, petroleum products, chemicals, wheat and numerous manufactured products. Important segments of the Brazilian economy were adversely affected very soon after the outbreak of the war in Europe. The British blockade prevented Brazil from trading with the Axis countries. The loss of this trade was significant; Brazil's trade with Germany alone for the years immediately preceding the outbreak of the war was only slightly less than its trade with the United States. The entrance of the United States into the war did not mitigate conditions in Brazil; in some ways it made them worse. Enemy submarine warfare was intensified and a very large number of ships transporting goods to and from Brazil were sunk. Moreover, the war demands on ships and goods prevented the United States from supplying adequately many of Brazil's basic needs. As a result of these and other factors, conditions became so critical that it was feared the economy would collapse and output of vitally necessary raw materials would decrease. Accordingly, the objectives of the Mission were to study methods of (1) increasing Brazilian production of essential products formerly imported; (2) converting Brazilian industries to the use of substitute raw materials, replacing materials formerly imported; (3) maintaining and improving Brazilian transportation facilities; and (4) laying the foundation for long-range strengthening of the Brazilian industrial economy.

The fourteen chapters of the book are devoted to discussions on such general topics as the land and economy of Brazil, manpower, minerals and metals, transportation, fuel, water power, manufacturing, and etiquette for American investors. The author has included in the book a great deal of the technical discussions on specific problems relating to these general topics which were in the Report. Hence, a substantial portion of the book is of little or no interest to most readers. Conversely, he has omitted from the volume discussions on many problems of considerable importance to business men, investors and lay readers. Among the omissions are those relating to agriculture, land reform, tariff, immigration and debt settlement. The author's unbounded optimism with respect to Brazil's future causes him to make many generalizations which are not substantiated. Moreover, he minimizes or ignores a number of weaknesses in the Brazilian economy. Since the book is intended pri-

marily for lay readers, these weaknesses are all the more significant.

The author states, for example, "modern industrial development in Brazil sprang first from the abolition of slavery in 1888 and was most rapid in São Paulo . . ." (p. 7) and "the establishment of the wage system in place of slavery stimulated industry throughout Brazil" (p. 39) by providing a labor force and creating a market. With the exception of the reference to São Paulo it is extremely doubtful whether these conclusions can be supported. Even granting that modern industrial development in Brazil started in 1888, to say that it sprang first from the emancipation law of that year is too superficial an explanation of two extremely complex movements. The abolition law of 1888 was much more significant in terms of national pride and responsibility than it was industrially. This law freed less than 725,000 slaves, approximately 5 per cent of Brazil's total population in 1888. Just prior to its passage there were three times as many free Negroes as slave Negroes. Of greater importance economically were the laws of 1850 and 1871 which terminated the traffic in slaves and freed all children born of slave mothers. The operation of these and other national laws, the abolition laws of the states of Ceara (1883), and Amazonas (1885), the emancipation decrees of several cities, voluntary manumission, desertion and deaths, had reduced the number of slaves from approximately 3,000,000 in 1850 to 1,500,000 in 1871 and to 725,000 in 1888. Slavery had received its death blow and would have ended soon after 1900 even if the law of 1888 had not been passed.

A more realistic explanation of the beginnings of industrialism in Brazil (in reality, São Paulo) is to be found elsewhere. The people who settled São Paulo from colonial days to the present time have been vigorous and adventurous but comparatively poor and, for the most part, unable to afford slaves. After 1860 the increased demand for coffee in Europe and the United States enriched São Paulo. Although most of the profits were invested in plantations, some of them were invested in industry. Many coffee plantation owners early realized that slave labor was very expensive; hence they encouraged, with state aid, immigration from Europe. After 1860 the number of immigrants coming to São Paulo increased steadily and in the year 1888 reached 92,000. The immigrants provided some of the needed labor in agriculture and much of the needed skills and initiative in industry; they also formed an important segment of the market for industrial goods. The tariff acts of 1887 and 1890 and the increase in transportation facilities also stimulated industry in São Paulo. Between 1860 and 1890 important changes were taking place in other fields: education, arts, politics, international relations, finance, etc. These changes, the emancipation law of 1888, the overthrow of the Empire in 1889, and the beginnings of industrialization, were all parts of a profound and all-embracing progressive movement.

With respect to productivity the author states that "the low wage scale of Brazilian labor naturally reduces productivity . . ." (p. 11). This observation is true only if wages are so low that laborers cannot secure adequate amounts of food, clothing and shelter, and therefore are unable to work effectively. Although there is evidence that this condition may exist in Brazil, the author both admits and denies it on the basis of personal observation and interviews

with several employers (pp. 62-76). In the chapter on manpower the author apparently discards the conclusions reached objectively by medical authorities, social scientists, and government officials regarding the poor health of the Brazilians in favor of his personal observations made from the window of his office (pp. 62-63)! Of course the laborers observed by him worked in the elite trades, aircraft and construction. It should be indicated that over 70 per cent of all Brazilian workers are engaged in agriculture and a very substantial percentage of the remainder are employed in low-wage industries. In these groups the number suffering from tuberculosis, leprosy, malaria, and malnutrition diseases is extremely high. As a result, Brazil has one of the highest sickness and mortality rates. Industry and agriculture both suffer because of the poor health of the workers.

The concluding remarks of the discussion on manganese ore are so worded as to give the definite impression that Brazilian manganese is of the highest quality and that the United States during both wars has depended almost wholly on Brazil for this ore (p. 90). Although the quality of Brazilian manganese ore is high, that mined in other major producing countries is of equal or even higher quality. The statements with respect to the dependence of the United States on Brazilian manganese during this war cannot be supported. Over 80 per cent of the total imports during the past four years has come from India, South Africa, Cuba and the Gold Coast; approximately 20 per cent from Brazil. United States interest in Brazilian manganese stemmed primarily from the fear that Japan would occupy India, the most important supplier. There is no shortage of manganese in the major producing countries. The lack of ships to transport the ore has been the real problem and it has affected the shipments from Brazil as well as those from other countries.

The author is optimistic as to the position of Brazilian industry in the post-war period, but evidence to support this position is inadequate. Typical is the discussion of manufactured rubber goods. The author states that since there is an abundant supply of raw rubber in Brazil, an industry to manufacture and *export* rubber goods can be established (p. 231). This is a curious conclusion since it is admitted that wild rubber from Brazil cannot compete with plantation rubber from Asia and that plantation rubber production in Brazil thus far has not been successful (pp. 106-07). With respect to the competitive position of Brazilian rubber in the future the author cites a rumor that the Japanese are planning to cut down 60 per cent of the trees in occupied areas, but he does not believe the destruction will be that extensive. Despite the fact that by the middle of 1943 the production of synthetic rubber in the United States was assured, the author dismisses the problem of competition by saying "we are searching for synthetic substitutes" (p. 108)—implying that such substitutes had not yet been found.

Two other weaknesses of a different type will be mentioned. Although the book is written for the lay reader, there is not one map or chart accompanying the discussions on population, topography, rivers, railroads, economic resources, manufacturing centers, states and cities. The book is too long; many sections could have been omitted or shortened. Typical are the sections on trade associations (pp. 46-52) and rubber (pp. 231-36). The materials covered

are of little interest to nontechnical readers; they are inadequate for business men.

The author is at his best in describing certain phases of the present-day Brazilian economy. Typical are the discussions on manufacturing and transportation. The textile industry, which is the largest and employs over 140,000 persons, is extremely inefficient; the entire industry needs new machinery and buildings equipped to control humidity. The paper, chemical, and metallurgical industries are in the very early stages of development, the units are small, techniques are poor, and no research is being done. "A little of the best and much of the worst" describes Brazil's transportation facilities. Although Brazil is larger than the United States it has only 21,000 miles of railroads as against 232,000 for this country. The equipment is old and since 1940 much of it has not been replaced. The existence of three gauges makes the interchange of rolling stock impossible and increases transportation costs. The number of miles of highways is extremely low and the quality of the roads very poor, many of them being impassable during the rainy seasons. Most of the numerous rivers are too shallow or have natural obstructions. The author suggests and defends the development of cargo plane and glider for transportation, especially to the interior and the Amazon Basin.

Although this volume does serve a useful purpose, a more discriminating type of book on Brazil is needed.

DONALD SHAM

Washington, D.C.

Economic Systems; Post-War Planning

Bureaucracy. By LUDWIG VON MISES. (New Haven: Yale Univ. Press. 1944. Pp. viii, 125. $2.00.)

The division between the Austrian theoretical and the German historical schools, signalized by the bitter interchange of views between Karl Menger and Gustav Schmoller in the last century, was more than a dispute over methods and over the significance of the subjective theory of price. It went farther and deeper, and left lasting results. Both groups were dissenters from the English classical school, but from that point their ways went wide apart. The members of the historical school professed to renounce all theories of price, but in fact were cost-of-production theorists when in need of a price theory. They disparaged the benefits of private enterprise, and advocated enlarging the powers of the state to fix prices and to direct the processes of production. The Austrian school, on the contrary, traced the ultimate sovereignty over price to individual subjective valuations of consumers, thus giving new emphasis to the democratic character of free enterprise, and new meaning to the price system. The one pointed the way to the totalitarian state, and the other to a greater and better liberalism in economic and political affairs. The conflict between the two ideologies was irreconcilable.

It is not mystery or chance that two of the most effective contemporary

critics of socialism and most valiant defenders of free enterprise are native Austrians, both pupils of Boehm-Bawerk and Wieser at the University of Vienna, carrying on the tradition of Menger. The one is now in England and the other in the United States. *The Road to Serfdom* by Friedrich Hayek, and *Omnipotent Government* and *Bureaucracy* by Ludwig von Mises, are essentially harmonious formulations of the present issue between freedom (political as well as economic) and the trend toward totalitarianism. Both men in their growing years were witnesses of the steady advance of totalitarian measures on the continent, culminating in the Hitler régime, and they warn the western democracies against recent trends in our public life.

Nor is it mystery or chance that John Maynard (now Lord) Keynes, who until 1924 was a faithful Marshallian in the Ricardian tradition, found it necessary when he became an advocate of national planning, to abandon the "classical" doctrines, and to make the state the arbiter of prices.

The little volume before us is not, as the title might suggest, a frontal attack on bureaucracy, a term which, as the author says, always has "an opprobrious connotation." On the contrary, it is repeatedly emphasized that the growth of bureaucracy is a symptom and not the real evil. "The culprit is not the bureaucrat but the political system." Bureaucrats are merely the tools, or agents, for exercising whatever powers have been acquired by government. The main argument is directed against the transfer to the government of the economic functions of price determination and direction of production. As these functions are more and more centralized and these activities are exercised by the government instead of by private enterprise, the number of bureaucrats necessarily increases, and an increasing volume of decisions must be entrusted to them. Hence bureaucracy with its growing arrogance is a fairly accurate measure of the approach to totalitarianism. Such seems to be the thought, although the author has found it difficult to keep this clearly distinct from an indictment of bureaucracy *per se*.

At times even a reader in sympathy with the author's main thesis may question whether capitalism is not exalted too much by crediting it so fully with all the fruits of science, invention, and cultural progress. Yet the case for free enterprise *versus* socialism has nowhere been more ably and readably stated in brief compass. It would be a mistake to interpret this as a plea for an unalloyed policy of *laissez-faire;* the need to exercise broad police powers to protect the health, morals, and security of the whole people is clearly recognized. Withal, Professor von Mises is a consummate general theorist in this day of specialization, and he views the problem broadly and speaks with deep conviction. The Austrian economists are nobly requiting the hospitality of the western democracies by their earnest warnings against too great confidence that "It cannot happen here."

FRANK ALBERT FETTER

Princeton University

The Control of Germany and Japan. By HAROLD G. MOULTON and LOUIS MARLIO. (Washington: Brookings Inst. 1944. Pp. xii, 116. $1.00.)

The Book-of-the-Month Club, believing that this recent publication of

The Brookings Institution could be of such vital importance in the establishment of a lasting peace throughout the world that every American citizen should be informed of its contents, distributed it as a special book dividend to its entire list of over 600,000 members. Hence, it has had a much wider circulation than is usual with serious studies of this type.

As the title suggests, Moulton and Marlio examine all the various proposals which have been advanced to prevent any revival of German or Japanese aggression in the future. Unlike a great deal of the current discussion based on wartime hatred and excesses of all kinds, the authors "take past experience into full account and all the future difficulties which can be foreseen, as time and self-interest change the present mood of peoples—as they surely will."[1] They reject many of the economic plans proposed as inadequate or futile; they do not believe that boundary adjustments or outright dismemberment (in the case of Germany) will solve the problem. They suggest certain simple key economic controls which would be relatively simple to administer and which would not disrupt world trade or the economies of adjacent countries, as useful supplements to disarmament and a system of military control, although some system of military control is fundamental. Force should be used promptly against Germany and Japan if allied supervisors in key industrial areas detect any evasion of disarmament provisions which are not halted immediately after a warning.

The use of force against Germany and Japan to prevent re-armament need not wait for a world security system, although the authors favor the development of a genuine international peace system but not "a make-believe collective security system—without adequate power to enforce decisions." "The surest and quickest means of realizing an effective universal peace system is by separating the German-Japanese problem from that of the world peace problem and solving it first."

"Meanwhile, a general international agency should be established for the co-operative handling of a wide range of political, legal, economic, and social problems. Such an organization, in adjusting international problems and controversies, would remove causes of military conflict and constitute the framework for an eventual collective security system world wide in its scope" (p. 108).

This was substantially the point of view put forward by Senator Vandenberg shortly before the Yalta Conference at a time when many Americans, anxious over developments in Poland, Greece, Italy and Roumania, were waiting for some clarification of our foreign policy while other Americans protested that the Allies could make no plans until the United States agreed definitely to adhere to some system of collective security. Vandenberg proposed that we definitely commit ourselves without delay to join with our Allies in the post-war military control of Germany and Japan.

Moulton and Marlio faced with vision and courage this and other problems on which there had been much muddled thinking and talking. They clearly distinguished between proposals of doubtful validity and others which are almost universally accepted. In spite of tremendous propaganda and pressure

[1] Book-of-the-Month Club Prospectus.

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to restrain the people of the United States from indulging in criticism of tentative Allied plans, proposals for the repressive economic treatment or dismemberment of the defeated enemy (such as the Morgenthau plan for the de-industrialization of Germany or Stalin's plan for reparations in the form of forced German labor battalions), were not well received on the whole, whereas there has been well-nigh universal acceptance of plans for the complete disarmament of Germany and Japan and for the use of force to prevent future aggression. Similarly there is wide support for the idea of American participation in some international organization, but at the same time an understandable reluctance to guarantee for all time the terms of a peace as yet unknown.

The book is divided into three parts. Part I is concerned with the Application of Economic Measures to Germany, Part II with the Application of Economic Measures to Japan, and Part III with the question of Economic or Military Control. It is impossible in the space available to review the various arguments in detail.

"The breaking up of Germany into a large number of small nations or the setting up of a separate state in Western Germany which would deprive the Reich of its richest industrial region would have such profound economic repercussions, both upon Europe and the world as a whole, that it would be self-defeating" (p. 93).

"In the case of Japan, the severance of the colonies would greatly reduce the nation's economic self-sufficiency for war purposes. But unless Japan Proper were also controlled, the nearby areas might at some opportune time again be seized in a new aggression" (p. 93).

The control of Japan will be a simpler problem than that of Germany when the Japanese people are confined to the home islands. Because of Japan's geographical position, her extreme weakness in industrial raw materials and the fact that she will not be self-sufficient in food stuffs, it should be possible to exercise this control by air and from the sea. It is possible that Moulton and Marlio underestimate the importance of the colonies and of her merchant marine in Japan's economic development in the past.

The Yalta Conference called for the elimination or control of all German industry which could be used for military production, and it has been suggested that this same principle be applied to Japan. This could mean virtually the complete de-industrialization of Germany and Japan.

On this point, Moulton and Marlio sum up as follows: "*Economic plans designed to destroy once for all the industrialism on which war power rests are impracticable.* The difficulties are two-fold: (1) the reduction of any highly developed industrial country to an agricultural status would leave a vast population incapable of self-support; and (2) it would disorganize and contract international trade at a time when an expanding world economy is of paramount importance for all nations. It would work directly at cross purposes with the economic self-interest of the controlling countries" (pp. 93 and 94).

They suggest that control over certain key industries which center on avia-

tion and the aluminum and oil industries—and electric power distribution in Germany—might make it difficult for Germany and Japan to rebuild their military power without too much disturbance to normal peacetime trade and industry.

The authors believe that it will be impossible to impose severe economic terms upon Germany and Japan without undesirable repercussions on the rest of the world and without seriously limiting the field of private enterprise. "*A general system of economic control would work strongly against private enterprise.* . . . Thus, the complications of an international economic control system, even though levelled against only two countries, would inevitably exert a powerful influence in the direction of government domination of business, both in the international and domestic fields. The weight attached to this fact will of course depend upon each individual's view as to the merits of government determination of business policy as compared with a system of private enterprise" (p. 96).

Although the authors do not discuss what may happen outside Germany and Japan, every thoughtful person realizes that the scope of private enterprise will be pretty much limited at the end of the war, but the precise degree will be influenced by the conditions of the peace. There will be three great powers at the end of war—the United States, the British Empire and the Soviet Union. If Britain is to remain a great power, she must recover her trade and is likely to increase trade controls within the Empire. In Soviet Russia, all trade and industry are absolutely controlled by the state, and this sphere of absolute state control will be immensely enlarged as a consequence of the war. It may include not only much of Eastern Europe but also Korea, Manchuria, Communist China and even Japan and Germany if economic distress and political unrest are so intense that communism presents the one hope of relief. Opinions will differ as to the desirability of such a development, but it will certainly impose the necessity of much more state control in other countries.

Many people think of economic controls as an alternative to military force. Moulton and Marlio reject this view. "We are forced to the conclusion that only military force can be relied upon to give complete protection against nations bent upon aggression. Not only are economic control measures two-edged in their effects, disturbing to world stability, and of dubious reliability, but *they cannot, in any case, be enforced unless backed by adequate military power.* The moment any country rebelled against the economic measures imposed, at its borders or within the country, military force would become necessary to compel compliance. The experience of the 1930's should have engraved this fact upon our memories" (p. 97).

There is so little passion and so much sober common sense in this little book that it should be read by everyone who is interested in the final peace settlement.

ELIZABETH BOODY SCHUMPETER

Taconic, Connecticut

A Prosperous Post-War Era Is Possible. By CARL H. WILKEN. (Sioux City: Raw Materials Nat. Counc. 1944. Pp. 48.)

As spokesman for the Raw Materials National Council and National Association of Commissioners, Secretaries, and Directors of Agriculture, Mr. Wilken has presented what is offered as the answer to the "economic riddle in the United States." All of the maladjustments and difficulties of our economic life, it is claimed, are now easily correctible if we follow the three simple steps to prosperity—parity prices, parity tariffs and new industries. That Adam Smith, Ricardo, Mill, Marshall, Taussig, Keynes and other men outstanding in the economic world of the past two hundred years have not understood and presented to the people this "key to prosperity" is attributed wholly to human skepticism and selfishness.

The great danger of Mr. Wilken's partial analysis lies in its strict adherence to an inflexible formula. Stuart Chase evaluates this sort of approach in his recent book entitled *Democracy Under Pressure*. He says: "Most special interest groups have a formula which tends to freeze the economy. Not only do they want the government to interfere on their behalf, but they want a *high unit price rather than high production*. This leads straight to restriction of output, to scarcity economics, cramps and spasms." To a populace confused by depression and war, Mr. Wilken's seemingly simple formula may have tremendous appeal as a panacea for all our economic ills. The author fails to define orthodoxy, but "politicians of all parties" are grouped indiscriminately with "orthodox economists," and on their collective doorstep is placed all blame for depression, unemployment, and public debt. But the author's thesis is the result of serious research and study, and as such is worthy of specific analysis.

The author's first proposal is the stabilization of the prices of farm products by a 100 per cent parity policy. The justification for government commodity loans to maintain parity for agricultural products is claimed to be inherent in this formula devised to show the multiple effect of a given increase in farm income. This is called the "1-1-7" formula and states that "each dollar of agricultural income translates into one dollar for factory payrolls and a grand total for all groups of seven dollars in national income or purchasing power." The assumption is that parity farm prices create substantial income at the beginning of our economic cycle and automatically carry through in a sevenfold turn of the initial dollars. This multiplier of 1 to 7 shows, assuming the statistics presented are accurate, a relationship. It does not seem, however, that the formula, or any part of the argument presented, establishes in any way a cause-and-effect relationship. The statistical record merely shows that at certain intervals computations were made of gross agricultural income, factory payrolls, and gross national income, all in money terms. A certain ratio has prevailed, but no proof has been offered that agricultural income is the governing factor.

Mr. Wilken states that with corn at 80 cents a bushel the yield to farm income, factory payrolls and national income would be twice that yielded by corn at 40 cents a bushel. It is submitted by the reviewer that a more accurate

statement would be that, with national income and factory payrolls at twice those levels necessary to sustain a 40 cents per bushel price for corn, the effective demand (demand plus a dollar) for corn might be sufficient to sustain a price of 80 cents per bushel.

Of a total labor force of approximately 55 million, 11 million are engaged in the production of raw materials, and 44 million in processing, distribution, and services. The raw materials produced by the 11 million are cost items to the 44 million, whether these materials are purchased for further production or immediate consumption. The higher the levels of employment and income in the processing, distribution and service segments of the economy, the higher will be the prices which can be paid to the producers of raw materials for their products. Hence, Mr. Wilken's argument would seem to be another case of putting the cart before the horse for the purpose of furthering the position of a minority group. It is axiomatic that, as industrial activity is stimulated, innumerable demands for agricultural products are created and strengthened. It is demand, not artificial price structure, which will call forth production of raw materials.

Throughout the study, emphasis is put upon income in money terms almost to the exclusion of any consideration of real income. Statistics are presented which show that the volume of production of basic grains and meats was approximately the same in 1928 and 1932, while in the latter year the national income was roughly 39 billion dollars compared to 82 billions in the former. The difference is called a loss, but could it not be possible that in 1932 the 39 billions cleared the market for basic grains and meats as effectively as 82 billions did in 1928? The author unwittingly weakens his purely monetary explanation by his true statement that "an economy is an exchange of goods and services and not a traffic in money."

The second proposal is to install a system of parity tariffs. The claim is made that protective tariffs will guard "the price level against excessive imports which might tend to break down our parity price structure." Complete disregard has been awarded the basic fact, inherent in the laws of comparative advantage and least comparative disadvantage, that we should produce those goods which we are able to produce better than any other nation. Foreign trade is dismissed with a wave of the hand and the reassuring question, "Why worry about foreign trade when we have everything, except a few minor items, in abundance?" Such flippancy was discarded when, at the outbreak of the war, we realized that the strategic value of these "few minor items" was way out of proportion to their monetary value. Furthermore, we dare not discard so lightly the fantastic potential demand of India, China, and other low living standards areas for the products of our economy. Are we to follow Mr. Wilken's advice and impose tariffs once again to support overspecialization in such crops as cotton, to strangle foreign trade, and to lay the foundation for economic frustration and a third World War?

In his plea for the encouragement of new industries, the author's discussion makes sense if considered apart from his fundamental thesis. If viewed as merely the third proposal in the whole scheme, its practicability is killed by the arguments which precede it. To adhere to artificial parity prices and

tariffs is to stifle the impetus necessary to new and expanding industries. The only sound proposal in the entire scheme would seem to be incompatible with the basic tenets of the whole thesis.

The study seems to contain considerable contradiction and paradox, and shows a tendency to streamline facts to fit a predetermined end. Much valuable information, however, is embodied in this report, if properly viewed as a partial analysis with a somewhat sectional bias. Its appealing language and seeming simplicity give emphasis to the desirability of subjecting this study to the closest possible scrutiny.

ARTHUR M. WHITEHILL, JR.

Bureau of Population and Economic Research
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The Equations of World-Economy in Their Bearing on Post-War Reconstruction. By BENOY KUMAR SARKAR. (Calcutta: Chuckerveritty Chatterjee. 1943. Pp. xix, 416. Rs. 12.)

The title of this interesting book is misleading. It has nothing to do with mathematical economics but deals in very broad terms with economic history and institutions. The author attempts to put one country in a specific stage of development of its economic life equal to another country at another stage. So we get, for instance: India (1940) = England (1830-48) = Germany (1865-70), and similar "equations."

In the course of his discussion of the comparative development of the economy in various countries the author shows often remarkable perspicacity and a wide, if somewhat superficial, acquaintance with the literature in many languages. His discussion of post-war problems is not very illuminating and rather journalistic.

GERHARD TINTNER

Iowa State College

Business Cycles and Fluctuations

The Economics of Full Employment: Six Studies in Applied Economics. Oxford Univ. Inst. of Stat. (Oxford: Blackwell. 1944. Pp. 213.)

If we are indeed traveling "the road to serfdom," then these six studies show us a rational—though somewhat formalistic—way to go about it. For, starting with the postulates of Keynesian analysis, the authors carry its implications through to the very end, bitter or pleasant, depending on one's social preferences.

The first essay, by F. A. Burchardt, outlines "The Causes of Unemployment." The causes are classified into three main groups: (1) the classical *laissez-faire* competition theory, which makes unemployment a short-time deviation from the normal as a result of wage rates which are out of line with the cost and price structure; (2) the "natural wave" theories, according to

which unemployment is simply a phenomenon of the lower phase of the cycle, and for which there are as many explanations as there are explanations of business cycles; (3) the demand deficiency theory, according to which unemployment results when people desire to save out of a given income more than the community wishes to absorb in offsetting outlays. The determinants of saving and investment are enumerated in the usual pattern, with expected changes in demand being considered "by far the most important factors" in investment decisions (p. 29).

In the second essay, M. Kalecki outlines "Three Ways to Full Employment": deficit spending, stimulating private investment, and a redistribution of income. Stimulating private investment is not considered a satisfactory method. It should be carried to a level adequate to expand the capacity of equipment *pari passu* with the increase in working population and productivity of labor (p. 47), but there is no guarantee that this is also the level at which full employment is achieved. If it is not, government spending must fill the gap. In contrast to the prevailing view in the United States, government spending includes both public investment and subsidies to private consumption. Whether the emphasis should be on consumption or investment, spending must be determined by the pleasantly evasive and completely political principle of "social priorities." The usual questions about deficit spending—Will it lead to inflation? Where does the money come from? How can we carry the burden?—are competently answered with the usual Hansen analysis.

The final method suggested, *i.e.*, redistribution of income by means of taxation, wage policy, and/or price control, is found desirable both because it would raise the propensity to consume and also because it would fit in with the author's concept of social justice. Except for the latter point, the effectiveness of the method is frequently exaggerated; for the limits of taxation are clearly recognized, even if they are somewhat widened by the author's interesting suggestions on tax improvements to encourage risk-taking. In fact, it is not very clear from the analysis of the debt burden why one should bother with taxes at all, especially in depressions.

In the third essay, G. D. N. Worswick examines "The Stability and Flexibility of Full Employment." It is a very sobering analysis for it makes it quite clear that just as much planning and control are necessary to maintain full employment as to achieve it. Interestingly enough, the author is either not aware of this or he disagrees fundamentally with his colleagues. For he establishes the principle that planning and (labor) reserves are supplementary: the less there are of the latter the greater is the need for the former (p. 78). The greater the unemployment the less need for government planning! But at full employment, it will be necessary to use subsidies and price control to deal with the pressure for rising wages (p. 70), price control to prevent the more uneven distribution of income caused by full employment itself (p. 77), government control of the location of industry and population (p. 79), government control to increase the mobility of labor (p. 73), and government control not only of the aggregate of demand, but also of its constituents (p. 78). In fact, the very concept of "full employment" will change with its achievement, and the author concludes that once we reach a level near full employment it

will be difficult to define that concept "in any way which is suitable for practical application" (p. 79). Road-to-serfdom pessimists will either smile with pride or cry with satisfaction at Worswick's conclusion that the achievement of full employment will "raise certain difficulties which can only be overcome by a greater degree of advance 'planning.' "

In some ways, E. F. Schumacher's essay on "Public Finance—Its Relation to Full Employment" is the most thought-provoking of the six essays. The discussion of the impact of Keynesian analysis on the classical principles of public finance (*i.e.*, keep budget small and balanced; reduce debt as fast as possible; tax consumption; if deficit cannot be avoided, issue long-term bonds; and borrow only for "productive" investment) makes it clear that these principles are not necessarily "wrong," but that they pertain to specific economic conditions which in modern times do not prevail as often as in the last century. Schumacher's most useful contribution to the post-war planning of public finance lies in his discussion of the supposed dilemma of taxing investment or consumption. In fact, investment and consumption are not necessarily opposites, and never so at times of unemployment. "One way—in fact the most sensible way—of increasing private investment . . . is to stimulate consumption" (p. 97). Once this is clearly recognized, the limits of redistributive taxation can easily be overcome. For not only will the increase in consumption stimulate investment, but the otherwise detrimental effect on the incentive to invest can be avoided by permitting all investments actually made to be charged—like present depreciation allowances—to cost account. While there may be better methods of overcoming this difficulty, nevertheless Schumacher's discussion makes it quite clear that the "either . . . or" method employed by post-war tax planners creates problems which do not really exist. Other problems of post-war finance, such as the burden of the debt, national debt and inflation, the rôle of the banks and the interest rates, are discussed in the standard pattern of the "new" finance. Interestingly enough—and this is no chance happening—the essay concludes with a series of recommendations nearly identical to Senator Murray's Full Employment bill of 1945.

T. Balogh's study of "The International Aspects of Full Employment" is an excellent summary of the post-war possibilities which confront international trade. The greater part of the essay analyzes the interrelations between the international balance of payments and full employment under all kinds of different assumptions as to price and income elasticities of demand and supply and the various possible disequilibria. Such findings as the one that "depressions in important countries hardly ever coincided with full employment" (p. 137) may show a pleasant sense of humor, but repetition is not enough evidence for such claims as that "the internal rigidity of the economic system has increased substantially" (p. 174) or that the prevention of unemployment and the minimization of the interference with the optimum international division of labor often constitute alternatives (p. 135). This last idea has, of course, been rather widely accepted, but that Balogh should agree with it is strange, especially since he realizes that the latter concept, *per se,* is somewhat meaningless, and that when we do try to give it meaning we find that the state of employment is one of its determinants. Although there is a different

optimum international division of labor for each level of employment, the optimum usually referred to is the one at full employment, so that the two can hardly be alternatives. Furthermore, the optimum is not only determined by the level of employment, but also by the very method which achieves full employment. For full employment can theoretically be achieved at a wide range of income levels, depending on the method employed, and the optimum would, of course, change with the income level.

Parts II and III of the essay analyze the requirements for a successful multilateralism, or, in its absence, the prospects for full employment in a world divided into regional *blocs*. For the former, it would be necessary not only that the nations of the world agree to maintain full employment, but they would also have to agree to certain domestic limitations in the methods to be employed. Since this may not be possible in post-war conditions, the author thinks regional *blocs* preferable to completely nationalistic policies. The conclusion is probably correct, but the analysis on which it is based is neither sufficient nor precise enough to prove it. For such *blocs* would of necessity have to be based on geographical factors which may not at all agree with the economic considerations. In as far as dissimilar conditions of production make trade profitable, it is quite likely that the countries which should preferably make up an economic *bloc* are geographically far apart. Or, the conclusion that small and poor countries would suffer most from nationalistic policies may be quite correct, but a great many more considerations would first have to be examined before the critical reader would accept it.

The sixth essay is K. Mandelbaum's description of "An Experiment in Full Employment: Controls in the German Economy, 1933-1938." This is an interesting outline of some of the problems which confronted the German government, but, as the author fully recognizes, its applicability to our own conditions is severely limited by the fact that Germany's full employment was the full employment of a war economy. The summary of Germany's foreign trade controls is too sketchy to give us a clear picture of the complexity of the problem, and also fails to show the applicability of the lesson to our own experiences. In the domestic sphere, the purpose of Germany's controls was to decrease wages and increase savings, and it is not quite clear what the relation of these controls are to controls which attempt the opposite. It is interesting to note that Mandelbaum disagrees with his colleagues on the need for labor controls at full employment, for he finds that wage differentials and noncompulsory measures were quite sufficient to direct the labor flow in the desired channels. This may in part be due to the fact that the mobility of labor increases with full employment.

In a concluding, unsigned section on "The Wider Implications of Full Employment" the need for extensive controls is again repeated and "justified." It is not a question of controls or no controls, it is argued, but a question of what kind of controls. And is it not better to have conscious, democratic controls than the sectional control of local groups, private control of cartels, and the hidden control of unemployment? As in most of our thinking, those who disagreed will still disagree, and those who agree will continue to agree, because of, or in spite of, the reasons presented.

The really basic weakness of the book is also one of its advantages: for it is thoroughly representative of the present-day methods of economic analysis. We were quite correct to criticize the "classical" economists for their neglect of monetary flows. But, as was to be expected, we are tending to the opposite extreme, overemphasizing these flows, and neglecting the basic elements behind them. But these are mistakes of the time, not merely of the book.

HANS A. ADLER

New York

Public Finance; Fiscal Policy; Taxation

The World's Biggest Business. By PAUL W. ELLIS. (New York: Nat. Industrial Conf. Board. 1944. Pp. xii, 139. $2.00)

Students of current public finance in the United States have missed for several years the annual compilations of federal, state, and local expenditures, revenues and debt which the National Industrial Conference Board published between 1926 and 1938. The present volume continues that series in a new dress, and it can only be hoped that it again will be published regularly.

As in former years the volume presents, for the three levels of government, expenditures broken down by functions, revenues broken down by sources, and debt broken down by purposes, maturity, and interest rates. Most of the data are given for the period from 1914 through 1943. The compilation shows the hand of a careful and painstaking expert in the intricacies of government finance and accounting.

There are, of course, always questions of classification on which one might differ. The table, "Federal Expenditures for Defense and War" (Table 14), includes expenditures from general and special accounts, but not the war outlays of government corporations, though there is little difference between, say, expenditures of the War Department for industrial facilities and outlays of the Defense Plant Corporation for the same purpose. The text is largely a description of figures rather than an explanation and interpretation of the findings. (See, for example, the discussion of the Veterans Administration on page 37 or the paragraph "Economic Significance" on page 19.)

Most readers will use the volume for general reference purposes and will not be disturbed by the fact that it is not always easy to check the figures with the sources. The author states, *e.g.*, on page 100, that so-called "other nontax revenues" of the states were 44 million dollars. The Bureau of the Census publication, *State Finances 1943* (p. 11), which is obviously used as a source for the other data in that section gives a figure of 31 millions. I also failed in an effort to identify exactly what source has been used for total federal expenditures. An appendix explaining the differences between the author's figures and those of official sources would have increased the technical usefulness of the volume. In a few cases the reader may have some difficulty in reconciling figures of various tables in the book. A comparison, for instance, of the total government expenditure figure for 1941 in Table 1 with the details

of Tables 6 and 7 fails to clarify which concept of expenditures is actually used for the summary table.

The study of trends in government finance is of special interest now when so many students are attempting to estimate what the size and structure of public budgets might be in the post-war period. The author extrapolates the trend of government expenditures—which were about 3 billion dollars in 1914, 8.5 billions in 1923, 17 billions in 1939—into the post-war period and concludes that: "Past experience indicates that we may expect total government expenditures of around $47 billion a year after World War II." It would have been of interest to learn in more detail how this extrapolation was obtained. The result is, as the author indicates, substantially higher than most of the other estimates of post-war government expenditures.

GERHARD COLM

Washington, D.C.

Money and Banking: Short-Term Credit

The Production Credit System for Farmers. By EARL L. BUTZ. (Washington: Brookings Inst. 1944. Pp. vii, 104. $1.00.)

Frequently the merits of a thin book are disproportionately greater than its shelf space; that is true of this one.

After an institutional and statistical beginning, the latter half of the book deals with one of the most serious problems of social policy—the weighing of net public benefits against the costs of a governmental subsidy. One can scarcely feel, after reading the book, that the relatively small subsidy to the Production Credit System has not more than justified itself. The book does, however, point up the inherent danger of subsidies unaccompanied by incentives, either in the statute or in administrative rulings, to encourage termination of the subsidy—in this case to encourage retirement of the government capital. The problem dealt with is of far greater significance than the specific application suggested by the title.

WILLIAM H. MOORE

Washington, D.C.

International Trade, Finance and Economic Policy

The Common Interest in International Economic Organization. By J. B. CONDLIFFE and A. STEVENSON. (Montreal: Internat. Lab. Office. 1944. Pp. iii, 135. $1.00.)

The argument [of *The Common Interest in International Economic Organization,* written by J. B. Condliffe and A. Stevenson, and published by the International Labour Office] presented by the authors is briefly as follows:

1. The five major economic objectives of the post-war world are "higher

standards of living, full employment, social security, economic development and international economic collaboration" (p. 9). For instance, borrowing countries "are no longer content to accept the judgment of cosmopolitan financiers as to the desirability of new enterprises." They will insist "that national and social objectives must enter into the planning of new industries within their borders" (p. 27). "The tests of efficiency are wider than mere productivity and certainly can no longer be confined to the sole criterion of profitability. An efficient business must be both profitable and productive; but if private business is to survive it must also prove its ability to meet the needs of society" (p. 47).

2. These objectives cannot be attained by a restoration of the economic system of the past. "It is more and more recognised also that merely negative policies such as the removal of tariffs and the other obstacles to trade cannot by themselves ensure a high and steady level of economic activity and employment" (p. 97). "There is no longer the prospect of returning to a self-regulating competitive market economy" (p. 49), because of the inherent trend toward monopolistic competition and economic rigidity which renders the old system especially inadequate to cope with the economic dislocations resulting from the war. "Indeed one of the distinguishing features of a monopolistic as distinct from a competitive system is that it combines the factors of production at a level below that of full employment" (p. 38). "The major element of rigidity is to be found in the growing importance of fixed capital in total production costs and of the capital goods industries in the economy as a whole," so that "the pressure for adjustment as economic conditions change tends to be concentrated on a narrowing segment of economic activity and mainly on raw material prices" (p. 49), resulting in instability so great as to disrupt the delicate self-regulatory mechanism, apart from the intolerable strain of post-war economic dislocations.

3. These objectives can as a practical matter be obtained only by positive national action. "It is clear that these objectives must be approached primarily in the sphere of national action and by using the instruments of national government" (p. 65). This means more state control of economic activity, although private enterprise may still play a powerful rôle. "The working out of policies designed to achieve maximum employment and increased social security must therefore be attempted by a combination of private enterprise and public controls" (p. 50).

4. "Such national policies, however, if they are to be effective, must be co-ordinated by international consultation and agreement. Pursued independently, they are likely to lead, as similar policies led in the decade before the war, to restriction of international trade and isolation of national economies" (p. 32). "In such circumstances national action is inevitably restrictive rather than expansive, and the experience of restrictive economic nationalism in the decade preceding the present war has proved that independent national action is incapable of solving the economic problems with which the modern world is confronted" (p. 11). "Indeed one of the tragedies of our time has been the growing conflict between social reform and internationalism" (p. 66).

The common interest in international economic organization lies, therefore,

according to the authors, not merely in integrating or controlling the foreign activities of nations or in providing favorable conditions of trade between them and all the necessary facilities therefor. Rather, it lies in the coördination of their domestic policies. This means consultation and agreement between governments regarding their actions designed to achieve internally full employment, higher living standards, social security and economic development in order that such actions may not be at the expense of each other but may be possible for all.

It is not clear from the evidence presented by the authors that the common interest which they believe should exist is the common interest which actually exists in respect of international economic organizations now under consideration or envisaged, namely, the Food and Agriculture Organization, the International Monetary Fund, the International Bank for Reconstruction and Development, and possibly others relating to the reduction of trade barriers, control of cartels, and orderly disposal of surplus commodities. With the possible exception of the Food and Agriculture Organization, which would function only in a limited scope and merely in an advisory capacity, these organizations would be interested principally in providing conditions and facilities necessary to the expansion of international economic activity under a system of private enterprise. The Fund would maintain the necessary monetary stability; the Bank would provide a sort of investment insurance, supplementing private investment when necessary; reduction of trade barriers, as well as the control or prohibition of cartels, would result in freer access to markets and sources of supply; and the orderly disposal of surplus would contribute to market stability. These measures are necessary to cope with government controls which already exist and are, at present at least, directed more toward the removal of such controls than toward their growth.

Interest in freedom of private enterprise is perhaps more powerful than the authors appreciate. It extends far beyond the business community. Freedom of speech, freedom of worship and the inalienable right to life, liberty and the pursuit of happiness, as well as democracy itself, would in the minds of millions of Americans be endangered by any developments which threatened freedom of private enterprise under which this country has grown strong and prospered. It is not a matter of logic; it is a fact of history and tradition. Individualism is an American heritage of British origin; its roots lie deep.

The common interest which the authors, Condliffe and Stevenson, find in international economic organization is discovered by leaving out of account freedom of private enterprise as an important post-war objective. It is, according to their argument, in conflict with the other objectives. The United States, at least, does not apparently share that view. It advocates both full employment and private enterprise. It does not hold with the authors that monopolistic competition is inevitable and that private enterprise cannot, therefore, provide full employment. There is no evidence to indicate that it has relaxed its efforts to break up and prevent monopoly.

Robert M. Carr

Washington, D.C.

The Méline Tariff: French Agriculture and Nationalist Economic Policy. By EUGENE OWEN GOLOB. (New York: Columbia Univ. Press. 1944. Pp. 266. $3.75.)

In the words of Dr. Golob, the Méline Tariff of 1892 was "part of the fundamental economic law of the Third Republic." It was the answer of French agriculturists to the structural changes in production and transportation which took place in the second half of the past century. In the course of this momentous transformation grain production in the industrialized countries of Europe became a high-cost area within the framework of the world economy. Adjustment to new conditions or protection was the alternative. In France, as in Germany, the latter was chosen.

A tax on food, and particularly on bread, is the most unpopular of all taxes. Moreover, the French agriculturists could not convincingly plead that what they wanted was only *temporary* protection. Therefore, vindication on a broader basis was necessary to make the country acquiesce in agricultural protection. Such vindication was found in the ideas of economic nationalism.

Autarkic, or semi-autarkic ideas became and remained an integral part of the agricultural ideology. Therefore, during and after the Great Depression agricultural protectionism contributed to the general process of disintegration of world trade to an extent which cannot be measured solely in terms of the restrictive effects of the various protectionist devices. No less, and perhaps more, important was the rôle of agriculture as a source of autarkic ideas. Thus the theme of the present study may claim a wider significance than is usually attached to inquiries into a special field of economic history.

The first chapter of the book gives a brief but well organized sketch of the history of French agriculture during the nineteenth century prior to the depression of the eighties. It is followed by an account of the impact of the agricultural depression. The chapter on "Syndicats Agricoles" shows how the professional organizations of French farmers became imbued with the spirit of economic nationalism; in this process the author emphasizes the rôle of the anti-liberal and anti-socialistic ideas of Social Catholicism. The presentation of the nationalist economic theory is essentially devoted to Paul-Louis Cauwès, whose work, as Dr. Golob suggests, "represents a refinement and advance of nationalist economics far beyond List." The author goes on to describe the protectionist campaign. The leading rôle of the *Société des Agriculteurs*, the organization of large landowners, before and during the campaign, is duly brought out, and emphasis is placed on the importance of the alliance between protectionists in industry and agriculture. The parliamentary struggle which ended in the passage of the Méline Tariff receives a rather detailed account. In the final chapter, Dr. Golob tries to deal with some of the effects of this tariff on the development of French agriculture between 1892 and 1910. His main conclusion is that the Méline Tariff was unable to bring to a halt the process of the relative decline of agriculture within the French economy but that it was able to attenuate and to retard this decline.

Dr. Golob has collected a considerable amount of factual material. The numerous references to contemporary speeches and articles afford a better and more intimate understanding of the atmosphere of the struggle for and

against protection. Throughout the book there are scattered indications of certain of the broader issues involved; as, for instance, the interrelation between protectionism and the democratic development of France.

Yet the book leaves a certain feeling of disappointment. In part this is due to the somewhat disconcerting willingness of the author to accept the doctrines and the programs of agricultural protectionists, or rather his unwillingness to lift the discussion above the level of the protectionist argument. Thus throughout the book he gives the impression that the alternatives faced by French agriculture were only protection or defeat in the competitive struggle. It is on one of the last pages of the book that one finds the following remark: "The whole policy of agricultural protection is nevertheless open to the accusation of timidity. Augé-Laribé writes that a nation courageous and conscious of its strength would have entered the competitive world of the late 19th and 20th centuries and accommodated itself to the necessities of the new day." But Dr. Golob hastens to add that "the question transcends economic policy and raises a question of national attitudes." It is difficult to approve of this self-restraint.

Even the sentence just quoted does not make it fully clear that the author is really aware that between the two alternatives—great shrinkage of the volume of agricultural production and the protection of its *traditional pattern*—there may have been a third solution; that is to say, an agriculture adjusted to competitive conditions by a change in its structure from the production of staples to that of converted products. The failure to raise this question prevents Dr. Golob from fully appreciating the *economic* significance of the rôle played by the *Société des Agriculteurs* as representatives of large landowners. In this respect comparisons with the parallel development in Germany may have been quite instructive. For the same reason the author does not inquire at all into the highly important question of the distribution of protection as among grains and high-grade products. A closer analysis of the table of tariff rates he gives on page 174 would have shown that the tariff actually protected grains *at the expense* of converted products. A comparison of the tariff rate on barley with that on hogs, for instance, shows that the foreign hog-raiser was given in the French market an advantage of about 7 francs per quintal over the French producer. Thus the tariff not only was not placed in the service of the adjustment to competitive conditions in agriculture; it actually made such adjustment more difficult, and, in fact, almost necessarily led to further upward revisions of the tariff rates.

In a certain sense, these deficiencies of the book are related to the "synthetic method" in history, as used by Dr. Golob. This method, as Dr. Golob explains in the Foreword, implies a many-sided treatment of the subject. The Méline Tariff is to be viewed from the point of view of theoretical economics *and* as a culmination of a long protectionist campaign; as one phase in the development of French commercial policies *as well as* in the light of French political history.

In the concluding paragraph of the book, Dr. Golob seems to regard the irreconcilable character of the controversy between nationalist and liberal economics as a justification of the synthetic method. He seeems to think that

if the economist has to take value judgments for granted, the presentation of economic history must faithfully register all positions. Far from becoming an effective synthesis, economic history, if it follows this course, grows into an agglomeration of facts and attitudes in which the reader, and perhaps the author, is likely to become hopelessly submerged.

Freedom from value judgments must not prevent the historian from selecting a significant angle under which the material is collected and arranged. Only in this way the parts of the inquiry can be "synthesized," that is, meaningfully related to each other. Dr. Golob's subject may have suggested a number of such approaches. The question of how the adjustment of agriculture to competitive conditions could have been achieved and to what extent and from what causes this was prevented by the adoption of the Méline Tariff is only one of them. To be sure to obtain an intelligent answer a number of various data, economic, political, social, are necessary, and Dr. Golob is certainly correct in trying to widen the scope of his inquiry. But this variety of data can result in a "synthesis" only if they are subordinated to a leading point of view. Dr. Golob's failure to work out such an approach results first in the fact that a number of important issues are raised only in order to be dropped abruptly, thus providing hints rather than serious treatment; and second, that a discrepancy arises between the amount of material assembled and the scope of its interpretation. It would seem that the same basic deficiency limits the author in the discussion of the effects of the tariff merely to the question as to whether the expectations or predictions of the one or the other side were justified by subsequent developments. In other words, the effects of the Méline Tariff are largely treated in terms of arguments and counter-arguments used during the protectionist campaign.

Dr. Golob has performed a service in collecting a great deal of material worth rescuing from oblivion. A greater degree of independence from the actors of his drama and a more generous use of the tools of economic analysis would have made it a more significant book.

ALEXANDER GERSCHENKRON

Washington, D.C.

Business Finance; Insurance; Investments; Securities Markets

Industrial Life Insurance in the United States. By MALVIN E. DAVIS. (New York: McGraw-Hill. 1944. Pp. xii, 399. $2.75.)

This book, which gives a strictly factual account of industrial insurance by an author well qualified by long experience to write with authority, will be welcome to all who are interested in making a realistic appraisal of the function and value of privately operated industrial insurance in the national economy. The industrial insurance business has, in recent years, been the subject of severe criticism notably, in the United States, in the Report of the Temporary National Economic Committee and, in Great Britain, in the

Beveridge Report. In both countries these criticisms have been vigorously met by the private companies. Mr. Davis's book furnishes a wealth of material by which the merits of the controversy can be weighed.

The importance of industrial life insurance in the economy of the nation is evident from the fact stated in the Preface to this book that, at the end of 1943, more than fifty million people in the United States, chiefly of wage earning families, were enrolled as industrial policyholders and owned $24,500,000,000 of such insurance. This is about one-fifth of the total life insurance of all kinds—ordinary, group and industrial—in force in this country, exclusive of national service life insurance. Three-fourths of it is in the three large companies identified with this class of business—Prudential, Metropolitan and John Hancock. That industrial life insurance fulfills an important economic function is demonstrated by surveys taken by one of these companies, which showed that in the great majority of the families in which industrial death claims were paid there were no other savings available and that in most cases where other savings existed these were insignificant in amount.

Criticisms of the industrial insurance system have been chiefly on the grounds of its alleged excessive cost and high lapse rate as compared with other forms of insurance. Thus, in the *Study of Legal Reserve Life Insurance Companies*[1] prepared by the Securities and Exchange Commission for the information of the Temporary National Economic Committee, the conclusion is reached that:

> There is ample evidence that the heyday of industrial insurance is over. It is clear that industrial insurance has failed to provide efficient and inexpensive protection for low-income families which is its essential purpose and that it has created unfortunate social problems of serious consequence.
>
> 1. Though sold to persons least able to afford life insurance, industrial insurance is the most expensive form of life insurance which companies have devised.
> 2. Over 95 per cent of the industrial policies written terminate before the ultimate purpose is realized.
> 3. It is frequently sold by high pressure and overbearing sales methods which result in an economic maldistribution of policies within the family group.

In its final report[2] the T.N.E.C., on the basis of these conclusions, made the following recommendation:

> A fundamental change in the conduct of industrial insurance should occur. Otherwise its eventual elimination may be necessary. The primary responsibility for the change lies with the companies issuing such insurance and the States which supervise them.

If these criticisms are well-founded they would constitute a very serious indictment of the whole system of industrial life insurance and of those who have been responsible for its operation. In the author's opinion they are not

[1] Monograph No. 28 printed for the use of the T.N.E.C. (Washington, Supt. Docs., 1940.)

[2] Final Report and Recommendations of the Temporary National Economic Committee. (Washington, Supt. Docs., 1941.)

well-founded. It is asserted as a fact that the investigation of the life insurance business by the S.E.C. was conducted in an atmosphere of hostility to the companies. No adequate opportunity was given to them to present their rebuttal of adverse testimony much of which was given by those who were not well qualified or fully informed. In the reviewer's opinion, Mr. Davis covers the subject matter of these criticisms fairly and impartially, properly emphasizing the fact that much of the criticism of the industrial insurance system is based on information which is out of date, incomplete, superficial or misleading.

As to cost, Mr. Davis points out that, from its very nature, industrial insurance must cost more than ordinary chiefly because of the smaller average policy, the mode of collecting premiums, the much more extensive service to policyholders (including free nursing and other welfare services) and the higher mortality experienced among the industrial classes. He shows from the statistics of his own large company that the cost is, in fact, *not* excessive, the expense rate being only slightly higher than for ordinary insurance on a monthly premium basis while the mortality cost reflects the experience among the policyholders. He shows also that both expense and mortality rates have been very materially reduced in recent years through changes in administrative methods and because of improvement in mortality experience. The fact is, however, that at present, mortality among industrial policyholders is about 120 per cent of that among ordinary policyholders and this in itself naturally results in a higher cost than for ordinary insurance.

Criticisms based on the allegedly excessive rate of lapse among industrial policyholders are likewise shown to be without sufficient justification. For example, the assertion of the S.E.C. that over 95 per cent of industrial policies lapse "before the ultimate purpose is realized" is misleading since it takes no account of the benefits received by those who terminated their policies before death or maturity and in addition conveys quite a wrong idea of the actual termination rates. Mr. Davis illustrates this by a study made in his company covering all policies terminated in 1941, which showed that only a fraction of 1 per cent of the premiums on these policies were paid on policies lapsing before they were entitled to a non-forfeiture benefit. The total voluntary termination rate among industrial policies in the Metropolitan was 2.4 per cent in 1943 although this was abnormally low due to favorable economic conditions. The normal rate is between 5 and 6 per cent which is not unreasonably in excess of the rate on ordinary policies when the fundamental differences are recognized. Lapse in the first year is, of course, relatively high, as it is in all forms of voluntary personal financial programs; but the early lapse rate has been greatly reduced through improvements in administrative methods and procedures, while because of the liberal terms of present contracts the financial loss to policyholders, through early lapse, is extremely small. Here also there has been a great improvement in recent years. In the Metropolitan the lapse rate in the first half year of 1940 was less than one-half of the rate experienced in 1935. In 1943 it was less than one-third of the 1935 rate.

Criticism as to high-pressure sales methods and economic maldistribution

has also largely been based on information which is out of date. Improvements in the methods of compensating industrial agents which stress the net increase in the agent's "debit" rather than the volume of new insurance, as well as administrative rules aimed at the elimination of over-insurance, have been in operation in the larger companies for some time and have largely, if not entirely, removed the basis for such criticisms.

It must not be supposed from the foregoing that this book is, in any sense, an apology for the industrial life insurance system. It was not written as a reply to critics of the system but to furnish an historical and factual account of its origin, development and operative processes and to give reliable and up to date information about it.

There is no reference in the book to proposals, both here and in Great Britain, that the primary function of industrial insurance—namely, "to provide funds to meet expenses incident to the last illness and death of every member of the family and, at the death of a wage-earner or housewife to make available additional sums to help carry the family over the readjustment period"—can and should be assumed by the government through an extension of the system of national social insurance. The private companies are, naturally, opposed to any such assumption of their functions by the government, which, in view of the wide scope of their operations and for other valid reasons would, in their opinion, be an unnecessary and unwarranted interference with the development of private enterprise.

JOSEPH B. MACLEAN

New York

Public Control of Business; Public Administration; National Defense and War

The Liquidation of War Production. By A. D. H. KAPLAN. A research study of the Committee for Economic Development. (New York and London: McGraw-Hill. 1944. Pp. xv, 133. $1.50.)

This is a sensible, well written, and useful book. It is not marked by penetrating analysis; a number of difficult problems are skipped over too hastily; and the author is perhaps more optimistic than the facts warrant. Despite these weaknesses, Professor Kaplan is to be congratulated on the good sense, broad perspective, simple style, and considerable expository ability he has blended in this monograph. And the Committee for Economic Development is to be complimented on the high level of its research studies thus far published. It is gratifying to see economists and business men joining forces in this way to bring the objectivity and tools of economic analysis to bear on the critical problems facing government and business in the years ahead.

In two paragraphs which are a model of succinctness, Professor Kaplan summarizes his main conclusions as follows:

It would be idle to pretend that the liquidation of war production is not

one of the most complicated economic tasks which the nation has had to face. But large as the magnitudes are, they do not justify defeatism. Given the necessary freedom of negotiation and the elimination of irrelevant procedures, the area of dispute in contract settlement can be reduced quickly to less than a billion dollars of debatable costs. Given continuous progress in adjusting the procurement program to prudent military requirements, the quantity of the prospective surplus on the domestic market (excepting aircraft and ships) will be less than the equivalent of 2 months' prewar retail sales. The accumulated government war plant, when analyzed for its convertibility to postwar use, leaves us with a net effective addition to peacetime plant of possibly 5 billion dollars. This addition is equivalent to that of 2 normal prewar years, and will not cover the deferred requirements of industries that were stopped from making the necessary capital outlays during the war.

These are all manageable totals, if we can mobilize the combination of careful preparation, clearly defined policy, and superior administration (p. 121).

The chapter on contract cancellations considers both the broad problem of programming contract cancellations and the more technical question of achieving prompt and equitable settlement once contacts are terminated. With respect to the criteria which should govern the planning of cancellations, Professor Kaplan has a useful discussion of the more important issues which are relevant and offers some positive recommendations. He particularly urges —and quite rightly—that contracts *not* be continued merely to postpone the evil day of shifting workers out of swollen war industries into more permanent sources of employment. He perhaps pays less attention than he should to the complementary problems of effecting a prompt and healthy reconversion—for example, through the demobilization of controls—but this lack is probably occasioned by the existence of other C.E.D. studies on these topics.

Professor Kaplan estimates that total surplus stocks owned by the government at the end of the war will amount to about 60 billion dollars. Of this, he disregards 45 billion dollars as representing ordnance-type items not saleable through commercial channels. Of the remainder, only 6 billions will remain in the United States and require domestic disposal. I cannot but feel that he unduly minimizes the problems of surplus disposal facing us. He excludes ordnance-type items because they do not have an impact on commercial markets. But this treatment ignores the highly important problem of scrap disposal.[1] Ships and aircraft are also included in the 45 billions of which he takes little account.[2] While the author recognizes that his conclusions regarding the magnitude of the over-all surplus problem must be modified to take account of large surplus stocks of particular items, his emphasis on the impact on normal commercial markets leads to relative neglect of some of the most serious disposal problems that the government faces. I wonder, also,

[1] The problem of scrap disposal is very briefly mentioned on p. 71, but, so far as I can see, his estimate of 15 billions in surplus stocks to be disposed of makes no allowance for military scrap eventually entering commercial channels. (See p. 67.)

[2] Not quite two pages are devoted to the post-war surpluses of aircraft and shipping, and the discussion adds little to our knowledge of the subject.

whether the large stocks in the Pacific area at the close of the war with Japan will all be disposed of abroad, as he apparently assumes.

In the chapter on disposal of government-owned plant and equipment, as in the other chapters, the author has some very sensible things to say—for example, on the need for a coördinating authority and clarification of government policy, the undesirability of the government's rushing to sell at sacrifice prices facilities which can be gradually absorbed by the economy into useful and profitable work, and the desirability of a wide distribution of facilities. But his recommendations are sometimes not very positive, and more than once he fails to treat adequately basic issues. For example, a table on page 101 indicates that 72.4 per cent of the government investment is in plants which cost $10,000,000 or more; 31.1 per cent, in plants each with a cost of at least $50,000,000. In these circumstances, how can we achieve a "wide distribution of facilities" and "permit full opportunity for participation by small business" (p. 109)?[3] As in the chapter on surplus stocks, the special problems connected with aircraft and shipbuilding are inadequately considered. The fact that these great chunks of investment are not readily convertible to profitable civilian employment does not solve the problem. And it raises additional questions concerning scrapping, salvage of tools and equipment, and so on. One may agree with the author's conclusion that, given the extent of conversion possible, the government-owned facilities "can satisfy only a fraction of the total postwar demand of industry for currently deferred replacement and expansion of its plant and equipment" (p. 110). But there is too much emphasis on the *total* aspect of the problem; the areas of primary difficulty are not sufficiently investigated; and too little attention is paid to the special problems arising from the disposal of facilities not readily convertible to civilian production.

Throughout the book, with respect to all three of the major problems considered, the author has relatively little to say about the administrative machinery which has been developed or should be established to secure the results desired. General suggestions are offered. But the second paragraph of his conclusions quoted early in this review contains such a tremendous "if" that the reader is entitled to more detailed analysis of the organizational aspects of the problem than the author in fact provides. The "combination of careful preparation, clearly defined policy, and superior administration" which is necessary leads this reader to wonder whether we are dealing with as manageable totals as the author suggests. But assuming that the estimates of the economic magnitudes are not greatly in error, perhaps the author's and the C.E.D.'s purpose is best served in this way. The challenge is clearly posed, to government and business, to secure the planning and coördination required. And for those who do the planning, as well as for anyone who seeks to understand the issues involved in liquidating our war production, this volume should prove a very useful reference.

R. A. Gordon

Washington, D.C.

[3] On p. 102, there is brief reference to the need for dismantling and breaking up large plants—"where this is practicable"—if small business is to have the chance to acquire "any significant part of government-owned facilities."

Industrial Organization; Price and Production Policies; Business Methods

Business Leadership in the Large Corporation. By ROBERT AARON GORDON. (Washington: Brookings Inst. 1945. Pp. xiv, 369. $3.00.)

This book is provocative in content if not in style. The style is straightforward, perhaps somewhat on the heavy side. The content, which is sufficiently indicated by the title, is of great importance to the three classes of readers to whom the book is addressed—economists, business men, and public-spirited members of the general public. Because Dr. Gordon has endeavored to write comprehensively on so broad a topic and to address simultaneously so many different readers, his book will appear sometimes highly technical and sometimes very commonplace. However, the book is a genuine contribution to economic literature, for it will add to knowledge and, more important, will provoke controversy, the life of thought. To get much of value from the book the reader will have to work. He will have to check Dr. Gordon's factual observations against such observations as he has been able to make himself, and he will have to think carefully in appraising the analysis and the arguments.

The subject is difficult because we have inadequate information, because we have great difficulties in making accurate observations, and because we have trouble with words and concepts. One of the first tasks in appraising the book is to determine the attitude of the author. As a first approximation, Dr. Gordon's attitude may be inferred from the quotations which follow. (Italics mine.) In the author's acknowledgments (p. x) he mentions his indebtedness to business men and then goes on: "All major statements of fact have been submitted to the companies mentioned, and such comments as they have made have been carefully considered; but *I have ultimately relied on my own interpretation of the facts* in the light of these comments." Later (p. 252, n. 12) he says: "Corporation executives, particularly the more prominent ones, and wealthy individuals generally decry the fact that the 'New Deal' has fostered a feeling of class-consciousness among workers and low-income groups. Class-consciousness, however, is not new in this country, and *it is most pronounced among those groups who decry it while not recognizing the phenomenon among themselves.*" In his conclusion (p. 347) Dr. Gordon states: " . . . merely professionalizing the board of directors is not enough to achieve competent business leadership and at the same time the *necessary* independent check on executives," and goes on (p. 349) to ask if "we could [should?] give a government agency, perhaps the Securities and Exchange Commission, the right to approve management selection of directors." Earlier (p. 259, n. 26) Dr. Gordon remarks: "Except for specialists such as market analysts and the like, economists as a professional group have had *surprisingly* little influence on businessmen."

If Dr. Gordon has accurately appraised the treatment economists have given business leadership, it is surprising that he should be surprised at the influence of economists as a professional group. In explaining "the nature of the prob-

lem," he remarks (p. 7): "The fact that businessmen, in pursuing the end of maximum profits for their firms, must adapt themselves to changing market conditions led the classical economists (and many modern ones) to look upon the business leader (entrepreneur) as a purely colorless medium, through which stimuli were transmitted to various parts of the economic organism. Thus the entrepreneur was assumed to be a passive agent, reacting to his environment but not in turn having an independent influence of his own."

Dr. Gordon's interpretation of the other economists appears to be most misleading. It is of course true that many economists, both classical and modern, choose to ignore the influence of the business leader at some point in their writings, especially when they are trying to focus attention on the critically significant factors in the problem they have selected. But there is a world of difference between saying that an economist chooses to ignore a fact and saying that he is ignorant of it. For this reviewer, Dr. Gordon has failed to do justice to his predecessors and by that failure has been led into an overstatement of the significance of his own work for economic theory. Much of his discussion of the significance for economic theory of business leadership in the large corporation appears confused for still another reason. He contrasts the facts of business leadership both with the "assumptions" of classical economics and with the facts about the entrepreneur at the time the classical economists were writing, and the two contrasts are not kept apart.

The author's discussion of "nonfinancial incentives" (pp. 305 *ff.*) is none too clear, even considering the enormous difficulties of the subject. Dr. Gordon lists: "the urge for power, the desire for prestige and the related impulse of emulation, the creative urge, the propensity to identify oneself with a group and the related feeling of group loyalty, the desire for security, the urge for adventure and for 'playing the game' for its own sake, and the desire to serve others." The reviewer does not doubt that all these motives are present, although he would like to remark that there are wide individual differences among business leaders and that a not dissimilar list might be drawn up for "economists as a professional group." The principal difficulty in understanding Dr. Gordon's discussion comes from his failure to indicate any method of observation or operation whereby the presence and relative importance of any one of this list may be distinguished. This difficulty is of some practical importance, for it would appear that Dr. Gordon believes that we now have no lack of incentives to top management. At least he says (p. 292): "The decline in the use of the bonus since 1929 does not seem to have led to any decline in executive morale or to any tendency for top management to work less hard or less effectively." Of course, a reader might interpret this statement to mean that executive morale has declined but for other reasons. This reviewer does not know whether Dr. Gordon has observed any decline or whether Dr. Gordon has a method of finding out whether any decline has really taken place. As Allyn Young once said of another author, "I do not feel that [this] interesting discussion of non-commerical incentives substantially increases our stock of useful knowledge . . . . To be considered, also, is the notorious unreliability of the data available for such a study."

Space will not permit any extensive examination of Dr. Gordon's observa-

tions and conclusions. Two of his most important generalizations concern the place of the corporation's chief executive and board of directors. The chief executive is pictured, not as the autocrat, but as the leading figure in an oligarchy of top executives. A reader who endeavors to check this generalization is of course dependent on his own limited observations. This reviewer's opinion would be that Dr. Gordon is correct in seeing an oligarchy but has gone too far in reducing the difference between the position of the president and the other members of the oligarchy. So far as the board of directors is concerned, the reviewer's opinion is very similar; the board of directors has generally more real economic functions than are given in Dr. Gordon's picture. It may be worth remembering, moreover, that in studying legal descriptions of the powers of the board and the powers of top management careful attention must be given to the differences between legal terminology and everyday English.

Enough has been said perhaps to indicate why the reviewer believes that Dr. Gordon has made a significant contribution to economic literature. It is much to be hoped that Dr. Gordon and others will continue to work in this field. Perhaps the greatest additional contributions will come from studies which appear as monographs or articles in periodicals and in which attention is more sharply focused.

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Transportation; Communication; Public Utilities

Civil Aviation and Peace. By J. PARKER VAN ZANDT. (Washington: Brookings Inst. 1944. Pp. x, 157. $1.00.)

Government Policy Toward Commercial Aviation. By GILBERT GOODMAN. (New York: King's Crown Press. 1944. Pp. 122. $1.60.)

The aviation industry could well afford to buy several hundred copies of Dr. Van Zandt's *Civil Aviation and Peace* to be distributed among persons who will be influential in determining future policies dealing with the control of civil aviation. This is not a disparaging remark designed to dismiss the book as propaganda; on the contrary, it is a compliment to the well-documented facts, the carefully presented arguments, and above all the enthusiastic style of Dr. Van Zandt's study.

In ninety-eight pages of text, not only are past attempts and present proposals to regulate civil aviation evaluated, but also the contribution which civil aviation can make to international economic stability through possibilities of mass air travel. It is the author's conclusion that a program of maximum use of air transportation is a positive contribution to the maintenance of peace.

When it is pointed out that international air transportation has been a relatively minor part of civil aviation, it follows that control over these activities alone would be of little importance in any attempt to de-militarize

the nations of the world. Not only have the domestic airlines performed a great variety of vital wartime services, but even the smallest and slowest civilian aircraft have been able to serve in many ways. The best measure of the air power of any nation, Van Zandt points out, is its ability to produce aircraft quickly and in great numbers. This ability is exceedingly difficult to control.

After analyzing in considerable detail the past attempts at international control of aviation and the more important proposed controls, Van Zandt concludes that "international supervision of civil aviation enterprise on the scale called for is utterly impracticable" and that there "is not the slightest prospect of its universal acceptance." Those who believe otherwise will find it necessary to provide an answer for many strong arguments advanced in this book.

The study ends with an analysis of the contribution toward international economic stability that could be made by the expenditures of Americans traveling abroad and the rôle that international air transportation might play in encouraging such travel if it succeeds in bringing its fares down to the "right" price of about three cents a mile and providing world-wide service at high speed. One important element in international economic instability has been the continued exports balances of the United States while a great creditor nation, thereby causing a shortage of dollars in foreign trade. Any program, therefore, which would encourage Americans to travel abroad would help to overcome the shortage of dollars available to foreigners. On the assumption that American travelers in the post-war period might spend an average of $300 abroad (which is 63 per cent of the 1926-30 figure) and that this would be offset by $50 from similar disbursements of foreign travelers in the United States, there would be a net dollar credit of $250 per United States overseas traveler. On this basis, four million passenger trips abroad by Americans each year would transfer a billion dollars net credit. Van Zandt is careful to emphasize that this is not a traffic prediction, but only a possibility based upon encouragement rather than restriction of international civil aviation. Nevertheless, the enthusiastic style in which the book is written leads the reader to believe that almost any traffic possibility might be realized in the next decade or two.

Valuable data are presented in three appendices. In Appendix A is reprinted the report of the subcommittee on aircraft in connection with the international Conference on the Limitation of Armament in 1921-22. In Appendix B are numerous statistical tables relating to civil aviation, and in Appendix C are interesting data relating to international travel.

In contrast with Van Zandt's carefully prepared study, the 122-page volume, *Government Policy Toward Commercial Aviation*, by Gilbert Goodman is decidedly disappointing. Although it was published in 1944, the manuscript was apparently completed about 1940 and no attempt has been made to consider the many decisions of the Civil Aeronautics Board since 1940. If there were no attempt made to evaluate the policies of the Board, this would not be a serious criticism, but Goodman does discuss these policies and indicates

that at the time he prepared the chapters (about 1940) there was an inadequate number of decisions on some phases of regulation for complete assurance that the policies could be discerned.

In so far as the study deals with competition and the regulation of air mail rates in the period begun by the Kelly act of 1925 and ended by the Civil Aeronautics act of 1938, it is a quite competent analysis of the several laws on the subject and their administration. For example, in his evaluation of the policies of Postmaster General Brown, Goodman contributes some additional information and arguments which tend to support this official's actions. However, with a few exceptions of this kind, his study is considerably less searching than others (such as F. A. Spencer's *Air Mail Payment and the Government:* Brookings, 1941) already published prior to 1944.

Perhaps the major criticism which must be made is the existence of numerous errors in the text, in the footnotes, and in the bibliography. Certainly there was sufficient time between 1940 (or thereabouts) when the manuscript was prepared and 1944 when the book was published to eliminate these. Only a few can be listed in a review, but these will serve as samples. In the bibliography he lists "David, P. *Economics of Air Mail Transportation.* The Blakiston Company, 1941." This volume was, in fact, published by The Brookings Institution in 1934. He refers to the Report of the Federal Aviation Commission as Senate Document No. 15, 75th Congress, 1st Session, but it is a document of the 74th Congress. He lists the "*South American Journal of Economics,* 1936, Vol. 4." when the *South* African *Journal of Economics* is undoubtedly meant and when it is inconceivable that all the articles for the entire year deal with aviation, although E. D. Weiss does have an article, "Commercial Air Transport," in three parts in the June, September and December, 1936, issues. He points out on page 68 that the compensation for carrying air mail "was not to exceed \$.40 per airplane mile regardless of the size of the mail load." And in the second sentence thereafter he relates that "a carrier whose mail loads averaged 700 pounds per plane received \$.33⅓ per airplane mile for the first 300 pounds, \$.10 for the next 300 pounds—but nothing for the last hundred pounds," or a total of \$.43⅓.

In addition to errors, there are occasional statements which might shake the confidence of a reader in Goodman's judgment as well as scholarship. For example, on page 5 where the federal airways system is being discussed, it is stated, "Since kinetic energy of planes carries them thirty miles after their motors fail, providing landing fields at thirty-mile intervals along the entire route made it possible for planes to land safely at all times." No qualifications of this statement appear in the text or in the footnotes, and it therefore appears to sound entirely reasonable to the author, although if true it would come as a comforting surprise to a pilot whose motors failed at an altitude of one hundred feet. Authority for the statement is given in a footnote, "Bureau of Air Commerce, Annual Report, p. 5," but since the Bureau issued a considerable number of annual reports, it is difficult to know which page 5 to consult for verification.

It is hoped that Goodman will not be discouraged by the defects in this book. Certainly there is need for scholarly research in the field of air trans-

portation and, if some of the pitfalls of inadequate care in his research can be overcome by Goodman, he will find that he can build on the knowledge displayed in *Government Policy Toward Commercial Aviation.*

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Labor and Industrial Relations

Wages of Agricultural Labor in the United States. By LOUIS J. DUCOFF. (Washington: U. S. Department of Agriculture, Bureau of Agricultural Economics. 1944. Pp. 193.)

In recent years our knowledge of agricultural wage workers has grown considerably. The widespread unemployment, underemployment and poverty of farm laborers in the depression inspired a large number of statistical studies and field surveys, as well as novels and nontechnical works. The war period, like all periods of high economic activity and relatively full employment, has seen a large-scale movement of workers away from the farm and into the steadier work and more adequate wages to be found elsewhere; the exaggerated fears of labor shortage between 1940 and 1942 and the considerable tightening of the labor market in 1943 and 1944 gave further impetus to the collection of facts and figures concerning agricultural workers.

Much of this research has been done by government agencies and investigating committees. Migratory laborers and other farm workers on relief were studied exhaustively by the Works Progress Administration. The influence of organized agricultural employers and processors in preventing the organization of their workers was brought to light by the LaFollette Committee. The casual and disorganized character of the agricultural labor market was described by the Tolan Committee. Throughout this period, the Department of Agriculture has expanded and refined its reporting of agricultural employment and wages, and has published a number of technical studies, including the present one, on these subjects. It cannot be said that any of this activity has led the way to a federal program for agricultural labor, but at any rate sufficient economic background for such a program has been accumulated.

Wages of Agricultural Labor in the United States summarizes much of the research which has been conducted by the Bureau of Agricultural Economics, covering the period from 1910 through 1943. The concentration of agricultural production, commercial output and wage workers on a minority of large-scale farms is described in the early chapters. Wage rates are analyzed by method of payment, geographical area, size and type of farm; Mr. Ducoff shows that agricultural wages and earnings are extremely vulnerable in periods of depression and unemployment. As might be expected in an unprotected labor market, agricultural wage rates are shown to vary closely with farm prices, cash farm income and net farm income; over the past quarter-century, however, the relative position of the wage worker in agriculture has generally deteriorated as well as the status of agricultural labor in comparison with

urban employment. Chapter VII, on the earnings and welfare of farm wage workers and their families, corroborates previous evidence on this subject; even in 1941, after agricultural wages had risen considerably above 1939 levels, 81 per cent of farm-laborer families received cash incomes of less than $1,000, with an average of $675. As Mr. Ducoff states: "The record over the three decades preceding this war is one of neglect of the interest and welfare of farm laborers. . . ."

The study well illustrates the virtues and vices of government research as compared with private or university research. Among the virtues are better facilities for the collection and tabulation of basic statistics, easier access to related information, more adequate personnel for staffing research projects, and other advantages of large-scale production and division of labor. Among the vices are a passion for elaborate statistical tables which fail to prove any point, an official timidity in making professional interpretations, and what appears to be a virtual determination not to ask or answer significant questions.

Some of the deficiencies of the present study are the result of flaws in agricultural concepts, particularly the concept of a farm. When a three-acre subsistence plot is classified in the same category as a 5,000-acre truck farm, complete with packing sheds and railroad facilities, statistics of average income, average wage bill, etc., can hardly be significant. Moreover, it has been recognized for at least a decade that sharecroppers are properly classified as farm laborers, but the Census Bureau and the Department of Agriculture continue to list them as operators, to the incalculable detriment of agricultural statistics.

A central theme is lacking in this study; the summary is good, but several chapters consist of an endless parade of statistical relationships, of dubious significance to an understanding of the agricultural labor problem. An economic analysis of low wages and earnings in agriculture would have been more profitable, showing the influence of spasmodic and discontinuous labor demand, a disorganized labor market, the cultivation of an oversupply of workers, chronic recourse to cheap labor sources, and the use of federal and state relief as a supplement to wages.

It is with respect to federal agricultural labor policy that the book is most disappointing. As Mr. Ducoff states, "Realization of parity objectives for agriculture with other industries should also imply a parity of responsibility to pay and maintain adequate wages and other conditions of employment." Mr. Ducoff makes it plain that the status of farm workers has deteriorated badly since 1910, and that the improvement in agricultural wages cannot be expected to outlast the war. Unfortunately, his policy suggestions are heroically brief, entirely unspecific and heavily veiled in a pall of official discretion. The time is long overdue for a detailed and specific blueprint for legislative and administrative action—to maintain agricultural wages at present levels or higher, to provide old age and unemployment insurance, to protect the rights of association and organization, and to establish an adequate system of agricultural labor exchanges. Much could have been done during the war period for the purpose of conserving and utilizing manpower, but our farm

labor policy has been dominated by an undiscriminating "freeze of labor" and a hectic search for new supplies. One may hope that the Department of Agriculture, which dedicated itself in 1937 to the welfare of "those who till the soil for hire as well as those who cultivate it as operators and tenants," will soon point the way toward a more satisfactory policy.

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Social Insurance; Relief; Pensions; Public Welfare

The Price of Social Security. By GERTRUDE WILLIAMS. (New York: Oxford Univ. Press. 1944. Pp. vii, 199. $3.75.)

This book is a series of essays on labor mobility and wartime manpower controls.

It deals only to a limited extent with the subjects which one would expect to find in a book called *The Price of Social Security*. Indeed, the author has not stated whether she limits "social security" to the social insurances, or whether she means by "social security" the growing range of state activities designed to protect the individual from the effects of fluctuations in economic activity. As a discussion of the price paid for the social insurances, the book is inadequate. Of the array of social insurances in Great Britain, only unemployment insurance is dealt with. Such matters as the economic implications of financing unemployment insurance by tripartite contributions, the effects of social insurances on the supply of labor and the bearing of social insurance payments on individual incentive are not mentioned.

In the chapters relating to labor mobility, Mrs. Williams is concerned primarily with the growing areas of rigidity in the labor market which prevent a proper adjustment of labor supply to demand, both occupationally and geographically. She discusses the effect on the mobility of labor of such factors as wage rate adjustments at an artificial level by collective bargaining, lack of adequate guidance of workers both to areas where jobs are relatively plentiful and to potentially expanding occupations, social insurance payments, especially unemployment insurance, housing shortages and various types of monopolistic employer practices.

In order to increase labor mobility, the author urges, among other things, that greater use be made of the employment exchange machinery than was customary before the war, even requiring employers to notify the exchange of vacancies and withdrawals; that the right to unconditional unemployment insurance benefits should be strictly limited in duration; that as a condition for receiving unemployment insurance benefits the worker should be required to attend a training course; that the Ministry of Labor should have the power to direct applicants whose unemployment benefits have been exhausted to alternative employment even if this entails a change in locality or occupation.

While it is difficult for an American to evaluate the economic and social forces that affect employment in England, it seems to this reviewer that Mrs.

Williams places undue stress on labor mobility as a cure for the employment problem that will face Great Britain after the war. The inarticulate major premise that unemployment is largely traceable to the absence of workers in the number and the occupations required at the points where jobs are available appears to permeate the book. This paragraph, for example, summarizes Mrs. Williams's criteria that must underlie a well-designed program for training centers: "It must not be work that would be undertaken as a paying concern in the ordinary way of business, since this would create a new body of unemployment in order to occupy an existing set of unemployed persons. If it is to keep alive industrial efficiency, it must be interesting and educative; it must be useful; it must be such that workmen of widely differing experience can take advantage of it and learn something from it, and yet it must not be so attractive (as the unemployed occupational centres of the 'thirties often were) that men in attendance are unwilling to leave it to go back to normal industrial life" (p. 160). She does not mention here or elsewhere that the availability of jobs for those who have been trained is a factor to be weighed in establishing training courses.

The chapters relating to wartime labor controls in Great Britain, Germany and Russia stand quite apart from the remainder of the book. The analysis of manpower controls in Great Britain is particularly interesting. Mrs. Williams worked for a time in the Man Power Division of the Ministry of Labor and National Service, and her remarks on the means and efficiency of wartime labor market control in Great Britain present facets of the problem that are obscured in official discussions. To one who has followed the development and administration of manpower mobilization in this country, her observations have the ring of truth. They are particularly pertinent at a time when this country is pondering the questions involved in manpower legislation. She demonstrates, for example, that the existence of a manpower law, even of a more extreme type than will ever be adopted during this war by the United States, is no cure-all for manpower problems. The importance of continued reliance upon voluntary coöperation is stressed, and the necessity for effective administration under either a voluntary or compulsory system is given great weight. Mrs. Williams points out, for example, that, "If an appeal is made to the good will and patriotism of citizens to offer themselves for work, it is of the utmost importance that the jobs should actually be immediately available for those who respond."

In spite of National Service Legislation, they, even as we, find that persons quit their jobs in violation of regulations, and employers continue to hire at the gate. The British, too, are faced with the dilemma established by the desirability of allowing individual circumstances to be taken into account in directing people to work through local administration and the conflicting objective of securing equity and uniformity through central administration.

The sections of the book relating to the principal and operation of wartime labor market control in Great Britain were to this reviewer by far the most interesting and valuable.

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National Health Insurance. By HERMANN LEVY. (Cambridge: Cambridge Univ. Press. 1944. Pp. x, 366. $4.50.)

This significant and timely volume is the fourth in a series of economic and social studies, of which Professor Bowley's *Studies in National Income* was the first, published by the National Institute of Economic and Social Research of Great Britain.

The present study is a carefully documented critique of the national health insurance scheme of Great Britain, a program which became effective July 15, 1912. The book is divided into seven parts. Part I sets forth the major characteristic of national health insurance and subsequent legislation; Part II describes briefly the categories of insured persons, and points out some deficiencies in the scope of insurance. Parts III, IV and V critically review the provisions of the present health insurance program, giving particular reference to (a) the general and special benefits; (b) the "flat-rate" system of cash benefit payment and the insufficiency of additional benefits in view of the British workers' budget; and (c) the types and adequacy of medical benefits and treatment under the scheme.

Part VI presents an analysis of the administrative organization and costs under national health insurance, and includes some pointed statistical comparisons of administrative cost ratios experienced by other national health insurance plans. Part VII presents the author's conclusions, and proposals which he is convinced are necessary in order to rehabilitate the British system of national health insurance and overcome its present major weaknesses.

This work was prepared prior to the issuance of the Beveridge Report, but it was not published until after this Report had been made available to the general public. A postscript chapter sets forth briefly the author's general appraisal of the Beveridge recommendations.

In this study Professor Levy has made a valuable contribution to the field of social insurance through his constructively critical appraisal of the national health insurance scheme of Great Britain. Throughout his appraisal he has brought together the evaluations of the Royal Commission (1926), the exhaustive studies in public health by Sir Arthur Newsholme (1931), the Political and Economic Planning Commission (1937), and other reports and studies. These have enabled the author to focus the spotlight on the major weaknesses of the present British systems of health insurance.

After a critical analysis of the scope, benefits, remuneration to the "panel" doctors, and administrative organization and costs of the British scheme, the author concludes that the system has proved of great value to the working people of the nation: "It has extended its scope from 15,000,000 (of whom 5,000,000 were already members of friendly societies) to almost 22,000,000 in the United Kingdom before the present war, and from the viewpoint of central administration there have been no major frictions or conflicts of an administrative nature during all these thirty years. Failures or irregularities by approved societies have been exceptional. The failures of National Health Insurance are not failures of administration within the prescribed framework" (p. 330).

But Professor Levy points clearly to certain basic shortcomings of the British system. The plan excludes dependants from the receipt of health in-

surance benefits. Flat rate cash benefits payments (now 18*s*. per week) are "ridiculously inadequate" (p. 331). The development and expansion of medical benefits have been slow; in fact medical benefits, chiefly consisting of the services of a general practitioner (panel doctor), are "as insufficient as cash benefits" (p. 333). Again, "home nursing, reconvalescence and follow-up treatment are among the most deficient sections of National Health Insurance" (p. 333). The approved friendly societies (through which most of the benefits are extended to their respective members) have demonstrated no desire to originate and pursue a constructive and dynamic policy of "health improvement" (p. 335). Finally, the unsatisfactory payment of doctors has restricted greatly the interest that the panel doctor can be expected to take in any single patient registered under his care (p. 334).

The author believes that these weaknesses are not inherent in the principle of social insurance, but rather that they are the result of administrative and financial deficiencies which can and should be overcome. He is convinced that "National Health Insurance can and should remain a separate statutory social service," and that "such a reform alone can ensure the economic basis for (a) the extension and increase of cash and treatment benefits which have become so necessary, and (b) that systematic and dynamic progress in preventive medicine and in the socialization of medicine which should crown the efforts of this social service" (p. 342). To effect these changes, therefore, the author proposes that new administrative bodies be set up, in the main rural or municipal, to take the place of the hundreds of independent friendly societies now serving as the administrative core of the system, and that large industrial establishments and other organizations be permitted to have their own sickness funds on the same basis as the statutory funds (p. 343).

Herein lies the great difference between the recommendations of this study and those ensuing from the Beveridge study. Professor Levy would revamp the administrative organization of the present system, and, after further modification, would make it the center of British national health services. On the other hand, the White Paper proposals presented to the British Parliament in February, 1944, and reflecting the Beveridge recommendations, would insure everyone in Britain, irrespective of means, age, sex, or occupation, complete medical services free of charge at government expense and administered largely through county or borough councils.

There is a point in this analysis from which the people of the United States can profit. The imminent enactment of compulsory health insurance in America, either upon a state basis such as is suggested by the health insurance proposals now before the California State Legislature, or upon a federal basis like that proposed in the Wagner-Murray-Dingell bill, suggests that legislation in this country must incorporate the lessons learned abroad from the actual operation of systems such as the ones in Great Britain, France, and Sweden.

Such analyses as that presented in the work of Professor Levy go far in pointing out the pitfalls to be guarded against in the formulation of a future health program for the United States.

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Consumption; Income Distribution; Coöperation

Economics for Consumers. By LELAND J. GORDON. 2nd ed. (New York: American Book Co. 1944. Pp. xiv, 666. $3.75.)

This second edition of Professor Gordon's book, with its well-organized information about consumer spending habits and problems, will be found useful as a reference by teachers in the consumer field. The earlier edition, published in 1939, has been brought up-to-date by a discussion of the wartime problems of consumers and expanded by the addition of new material on such topics as weights and measures. Among the new sources on which Professor Gordon has drawn are the Twentieth Century Fund study *Does Distribution Cost Too Much?*, the Harvard Business School study *The Effects of Advertising* by Neil Borden, the final findings of the federal government's *Consumer Purchases Study*, and the 1940 Census. From first-hand knowledge of the Office of Price Administration he has compiled a detailed history of its work, which will be found particularly useful. The chapter would have been more valuable if he had included some discussion of the work of the War Production Board, with its control over consumer goods production and its experiments in working with consumers.

Professor Gordon has set out as his main objective "to discover and point the way to wiser consuming practices calculated to promote human welfare." He has shown clearly and in detail the pitfalls into which consumers fall when spending money, due to human frailty and to imperfections in the economic system. He gives much valuable advice and information regarding budgeting, buymanship, coöperative purchasing, insurance, shelter, investments, standardization of consumer goods, informative and grade labeling, weights and measures, and private and public aids for the consumer. His chapter on shelter contains only brief reference to government housing programs; the sections of the book dealing with health and insurance do not discuss the social security program or proposals for a national medical care program.

In addition to his practical advice for consumers, Professor Gordon has included a discussion of the rôle of the consumer in the economy. Not many economists today, however, are satisfied with the theories of pure competition which Professor Gordon uses as a working basis for his analysis. He takes as a starting point the assumption that consumers acting as rational "economic men" would unconsciously guide and control the economic system in the best interests of all, and his emphasis is mainly on laying bare limitations to this assumption and how they may be overcome. While the influence that consumers exert on the economy through their day-to-day buying is unquestionably important, it seems even more important for consumers to recognize that to an increasing degree their economic welfare is affected by the activities of the government and of organized groups, such as labor unions, farm organizations, business and professional associations. Within the framework of a free enterprise society, the conscious efforts of management, labor, government and consumers working together on problems of mutual concern are of great

importance. Professor Gordon, however, pays little attention to organized activity on behalf of consumers, except that of the consumer coöperative movement. As a matter of fact, many women's groups, professional organizations, civic, farm, and labor groups have worked, along with consumer coöperatives, for the protection and advancement of consumer interests. An economics "for consumers" hardly seems complete without specific recognition of the various ways in which consumers have tried to become more effective against highly organized special interest groups. In a text with a title "economics" it could be expected also that some attention would be given to economic theories such as those of J. M. Keynes and his followers who attach major theoretical importance to social controls over consumption and investment. It seems at least questionable for Professor Gordon to claim flatly that he has based his book on "established" economic principles.

A certain lack of realism in Professor Gordon's approach is evident in his suggestion for curing the political impotence of the coöperative movement "by affiliation with some political party whose aims and ideals most nearly coincide with those of the coöperative movement" (p. 396). An elaboration of this idea seems in order, since it is a commonplace observation that the coöperative movement includes many staunch Republicans and Democrats, as well as Socialists, Communists, and anarchists.

To take another example, in discussing the important question of the relation between consumer and producer interests, Professor Gordon says: "As consumers, workers are interested in an abundance of wealth at low prices; as producers they are interested in a scarcity of goods and services to yield high prices" (p. 383). It is questionable whether workers would subscribe to such a statement of their interests as producers; active and informed AFL or CIO members would certainly point out that the national policies of their unions have consistently called for full employment and full production.

According to Professor Gordon, the interests of workers as consumers take precedence over their interests as producers, a "simple truth" which has not yet "dawned" on American workers. He reasons that workers (as contrasted to others) should be consumers first and producers second because there are so many of them. This question of "precedence" of interest seems largely academic. Workers are interested in both the wages gained by collective bargaining and the quantity and quality of the goods they can buy with these wages. In other words, they are interested in their real incomes. Their interests as producers and consumers are not conflicting interests to which priorities must be given, as is evidenced by the fact that the major trade union organizations with their membership of fourteen million working men and women have given the fullest support to government price and quality controls. Arguments for wage adjustment since the freeze of January 1941 have been based on reports by their members of higher prices and lowered quality of goods found when shopping, and it is claimed that compensating wage adjustments could be made without the danger of inflationary price increases. These arguments seem a clear recognition by workers of the coördinate importance of prices, quality, and wages. Professor Gordon might have given credit to workers by recognizing the leadership trade unions have given in

working for more effective consumer legislation and for more consumer-minded legislators. Instead, he suggests that greater attention should be given to the consumer coöperative movement. The fact that workers apparently attach equal importance to their consumer and producer interests, and are turning to political action instead of consumer coöperation is an indication that Professor Gordon may have difficulty in getting wide acceptance for ideas which appear as "simple truth" to him.

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Gustav Cassel
1866-1945

On January 15, 1945, Gustav Cassel died, the dean of Swedish economists and one of the most renowned economists throughout the world in the present generation. Cassel's international repute rested upon his extensive writing through the greater part of his seventy-eight years of life, his active participation in public affairs both at home and abroad, and his influence as a teacher and publicist.

Cassel's contributions to the literature of modern economics are found principally in the four fields of value theory, monetary problems, the analysis of business cycles, and the critique of socialism. His first notable publication was made in the field of value and distribution theory in *The Nature and Necessity of Interest* (1903). He was chiefly concerned in this work to demonstrate a separate productivity inhering in capital, explicable on the grounds of scarcity of supply without recourse to psychological determinants; but the treatise illuminated the theory of capital in many ways. The services of capital would be scarce and valuable even in a socialist state: the problem of why interest exists should not be confused with the ethical issues raised by the possibility of living through owning. Students of capital theory will recall also Cassel's suggestion of what we now call a "backward rising" capital supply curve, and his idea that interest rates (expressed as the number of years purchase) may have some connection with average life expectancy.

His systematic works in value theory include *Outlines of an Elementary Theory of Prices* (1899), *Fundamental Thoughts in Economics* (1925), and *A Theory of Social Economy,* first published in German in 1918, but not available in English until 1924. Translated into several languages, the *Social Economy* came quickly to be a standard treatise and a widely used textbook in universities throughout the world. It departed from the neoclassical tradition in rejecting what the author regarded as unprofitable speculations as to the subjective attitudes of suppliers of economic services. Though this approach would be favored by the behaviorist psychology, Cassel's substitution of a mere principle of scarcity for the idea of subjective value underlying the phenomenon of price has not found general acceptance, witness the current popularity of the indifference analysis. The work recommends itself chiefly as a particularly lucid exposition of price theory along the lines of the Walras tradition.

Cassel's influence upon the world of practical affairs has been largest, however, in the realm of monetary phenomena. It is here that we find the largest part of his writing for scientific journals and newspapers, and his excellent tracts for the times: *The World's Monetary Problems* (1912), *Money and Foreign Exchange after 1914* (1922), *Outlines of the Development of the*

Monetary System (1931), and *The Downfall of the Gold Standard* (1936). Monetary analysis and policy in the inter-war years were strongly influenced by these writings and by Cassel's participation in the numerous international conferences of that period.

The idea of "purchasing power parity" as the equilibrium value of foreign exchanges was not Cassel's discovery, but its popularization was undoubtedly his accomplishment. Originally the concept was introduced by Cassel in the so-called absolute form: the international exchange ratio of two currencies will tend to settle at the ratio of the absolute height of their price levels. Because the costs of transportation of goods or obstacles to trade, such as tariffs and quotas, might operate unequally as between two countries, the absolute form was rather quickly supplanted by the relative form: the equilibrium rate of exchange would *move*, relatively to its position in a base year when equilibrium in the balances of payments could be assumed, in the same ratio as the relation of *changes* in the price levels. Purchasing power parity, even in this formulation, has to be corrected for changes in relative trade obstacles, in international demand, in relative costs, and for protracted capital movements.

Despite these limitations, and especially if Cassel's wholesale price index is supplanted by one more appropriate to international equilibrium, the device may be useful in forecasting the future level of a given exchange if it is free to move. Cassel utilized the idea, known in this context as the "inflation theory," to refute the official apology propagated by Germany that the complete depreciation of the mark in 1923 was explained by a mere scarcity of goods and by an unfavorable balance of trade. He also based upon the parity doctrine his adverse judgment against attempts to restore badly depreciated currencies to their old values.

During the twenties Cassel predicted a world shortage of gold. This was partly derived from his explanation of secular price movements in the century from 1810 to 1910 in terms of the deviation of the stock of monetary gold from a computed normal increase of 2.79 per cent per annum which would parallel the secular increase of physical output. There are grounds for skepticism concerning this analysis, as for example the effects of changing from a silver or a bimetallic to the gold standard in the chief trading nations during the century. But the devices recommended by Cassel for alleviating a gold shortage by monetary changes have meanwhile come into practical acceptance.

In the field of business cycle theory, Cassel has been less influential than Wicksell. Common to both was the doctrine that cycles consist primarily of alternations of an excess of investment over saving and the reverse. The only categoric difference lay in Cassel's contention that the "natural" or "real" rate of interest would tend to conform to the market rate, whereas Wicksell held the reverse. Curiously enough for the proponent of such a doctrine, Cassel was completely out of sympathy with the recent doctrine of Keynes and Hansen.

An adequate appreciation of the significance of Cassel leads beyond the realm of scientific literature to his extensive popular writing, his wide partici-

pation in public affairs, and his influence upon the rising generation of scholars. He began contributing in 1897 at the age of thirty-one to the Swedish newspapers and journals such as the *Svenska Dagbladet,* the *Index* of Svenska Handelsbanken, and the *Quarterly Report* of the Skandinaviska Kreditaktiebolaget. For half a century thereafter, the intelligent reading public looked forward to the position taken by Cassel on the important economic and social issues of the day. His career as a teacher extended from his appointment as professor in economic and financial science at the University of Stockholm to *emeritus* status in 1933. His career as a consultant began in 1904 with an appointment (held until 1917) as adviser to the Department of Finance. Thereafter he was a member of the bank commission in 1917, a member of the economic council, 1920-21, and an adviser to the railroad council, 1924-26.

During the First World War, Cassel was asked by the government of Germany to help solve some of the country's pressing economic problems; in 1922 he advised in the establishment of the Russian State Bank; and in 1928, he testified before our House of Representatives Currency and Banking Committee as to means for stabilizing the purchasing power of the dollar. He was the Swedish delegate to International Chamber of Commerce meetings during the twenties at London, Rome, Brussels, Stockholm, and Amsterdam; and he participated in the World Economic Conferences of Genoa (1922) and London (1933).

Cassel enjoyed as wide recognition and honor as ever has been accorded an economist during his lifetime. His books were translated into many foreign languages. He held honorary degrees from a number of universities, and occupied honorary lectureships at Oxford, London, Geneva, Columbia, and Chicago. He was an honorary member of the American Economic Association and a member (1914), gold medallist (1922), and president (1926) of the Royal Swedish Academy. Commenting upon his death, a Stockholm newspaper wrote that he was a whole academy in himself.

Cassel was essentially a liberal in economic philosophy in his belief in the efficiency and benefit of a competitive price economy. This liberalism is apparent in the books already cited and, more particularly, in *Recent Monopolistic Tendencies in Industry and Trade* (1927) and *Socialism and Progress* (1928). Cassel frequently warned against the outcome of authoritarian tendencies in economic policy: "The arbitrariness, the mistakes, and the inevitable contradictions of such a policy will, as daily experience shows, only strengthen the demand for a more rational coordination of the different measures and, therefore, for unified leadership. For this reason Planned Economy will always tend to develop into Dictatorship." Tributes written by Cassel's outstanding students, Professor Bertil Ohlin, now Swedish Minister of Commerce, and Senator Gunnar Myrdal, pointed to Cassel's faith in rationalism, in progress, and in the final victory of common sense.

HOWARD S. ELLIS

Washington, D.C.

George S. Wehrwein
1883-1945

Professor George S. Wehrwein, land economist, died at Madison, Wisconsin, on January 10, 1945. Professor Wehrwein was born on a farm in Manitowoc county, Wisconsin, on January 31, 1883. In the nearly 62 years of his life, he attained international preëminence as a scholar, teacher, and counselor in the field of land economics.

A graduate of Oshkosh State Teachers College and the University of Wisconsin College of Agriculture, Professor Wehrwein was on the staffs of the University of Texas, Washington State College, and Pennsylvania State College before returning to Madison to complete his doctorate in 1922. He was a staff member of the Institute of Land and Public Utility Economics at Madison and then at Northwestern University. In 1928, he returned to the University of Wisconsin where he held a professorship until his death. He also was a visiting professor at Colorado State College, and Chicago, Northwestern, and Cornell Universities.

Long a member of the American Economic Association, Professor Wehrwein was also a past President of the American Farm Economic Association, Vice-President of the American Society of Planning Officials, an editor of the *Journal of Land and Public Utility Economics*, and a member of the editorial councils of *Rural Sociology* and the *Journal of Farm Economics*. He also served on the Wisconsin State Planning Board, and, during its existence, he was on the Land Committee of the National Resources Planning Board. He was co-author of *Outlines of Land Economics* and of *Land Economics*, the standard textbook in its field, and author of numerous articles and papers dealing with land tenure, land utilization, and land use planning.

Professor Wehrwein was both a great intellect and a rare personality. An assiduous investigator, he was in orderly possession of a vast store of information pertaining to the relations among men arising out of their common interest in the land. But this great asset was more than equalled by his personal charm. Modest and quiet, Professor Wehrwein was also generous and amicable. It was this exceptional combination of wisdom and kindliness which made him admired by his many students, beloved by his colleagues, and respected by professional associates, busy administrators, and lay people who came into contact with him and who, knowing him, sought and cherished his friendly advice and judicious counsel.

L. A. S., Jr.

Madison

NOTES

The Nominating Committee of the American Economic Association includes the following members: J. Douglas Brown of Princeton University (chairman), Milton Gilbert of Washington, D.C., B. F. Haley of Stanford University, B. W. Lewis of Oberlin College, Mabel Newcomer of Vassar College, and George W. Stocking of the University of Texas. Members of the Association are invited to send to the committee the names of persons whom they would like to have considered for the elective offices—president, vice-president, second vice-president, and two members of the Executive Committee. These suggestions should be sent to the chairman of the Nominating Committee, in conformity with Article III, Section 2, of the bylaws of the Association.

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The allied social science associations are being served by the following officers during the present year:

American Accounting Association—Ernest C. Davies, Northwestern University, secretary.
American Association of University Teachers of Insurance—Frank G. Dickinson, University of Illinois, president; Chester A. Kline, University of Pennsylvania, secretary.
American Business Law Association—Robert E. Lee, Temple University, secretary.
American Farm Economic Association—L. J. Norton, University of Illinois, president; Asher Hobson, University of Wisconsin, secretary.
American Finance Association—Lewis A. Froman, University of Buffalo, secretary.
American Marketing Association—Donald M. Hobart, Curtis Publishing Company, Philadelphia, president; Ross M. Cunningham, Massachusetts Institute of Technology, secretary.
American Sociological Society—Kimball Young, Queens College, president; Conrad Taeuber, U. S. Department of Agriculture, secretary.
American Statistical Association—Walter A. Shewhart, Bell Telephone Laboratories, Summit, N.J., president; Lester S. Kellogg, 1603 K Street N.W., Washington 6, D.C., secretary
Econometric Society—Lord Keynes, Cambridge University, president; Alfred Cowles, University of Chicago, secretary.
Institute of Mathematical Statistics—Paul S. Dwyer, University of Michigan, secretary.

The American Farm Economic Association is sponsoring a series of awards for papers dealing with parity prices and post-war policies for agriculture. The topic selected is "A Price Policy for Agriculture, Consistent with Economic Progress, That Will Promote Adequate and More Stable Income from Farming." First Award is $5,000; Second, $2,500;

Third, $1.250, and there are fifteen additional awards of $250 each. The purpose of the awards is to stimulate nation-wide interest in improved price and income policy and methods for dealing effectively with farm price problems in the reconversion and post-war periods. For additional information, inquiries shoud be addressed to Asher Hobson, Secretary-Treasurer, American Farm Economic Association, University of Wisconsin, Madison, Wisconsin.

In February, the Biometrics Section of the American Statistical Association began publication of its bi-monthly ***Biometrics Bulletin*** to foster contacts between biologists concerned with statistical information, problems and methods, to stimulate research and to elevate the standards of statistical work. Professor C. I. Bliss of Yale University is chairman of the Section and Professor Gertrude M. Cox of North Carolina State College is chairman of the ***Bulletin's*** Editorial Committee.

The Canadian Political Science Association, of which K. W. Taylor is president, held its seventeenth annual meeting May 23-25, at Queen's University, Kingston.

The International Ladies' Garment Workers' Union, 1710 Broadway, New York 19, has available a limited number of copies of the Proceedings of its 1944 convention to be sent to interested persons or libraries. The volume contains addresses and discussions by national figures on critical questions of the present and the near future.

The Proceedings of the Fourth Session, Institute of Economics and Finance, held at Occidental College, February 28-March 2, will be published and available to the libraries and other institutions that have copies of the proceedings of previous meetings. A limited number of copies will also be available for individuals. Requests may be sent to Professor Cecil L. Dunn of Occidental College.

The University of Wyoming at Laramie will have for the first term of summer school this year—June 20 to July 26—an Institute of International Affairs. The subject for the Institute will be Central and Eastern European Affairs. Feliks Gross, lecturer at New York University, will be the director. The teaching staff will include J. W. Baldwin, Vojta Benes, Lewis Corey, V. C. Coulter, Petras Dauzvardis, Waclaw Lednicki, Phillip Lohman, Nicholas G. Mavris, Anatole G. Mazour, Ante Pavelich, Michael J. Politis, Sylwin Strakacz, G. Harrison Thomson, Basil Vlavianos.

Edward Johns Urwick, M.A., F.R.S.C., head of the department of political economy at the University of Toronto from 1926 to 1937, died at Vancouver on February 18, 1945.

Appointments and Resignations

J. Ellwood Amos has resigned from the finance department of the School of Business Administration of the University of Pittsburgh.

Alvin B. Biscoe, vice chairman of the War Labor Board for the Atlanta region, has been named dean of the College of Business Administration of the University of Georgia.

Chelcie C. Bosland has been promoted to professor of economics at Brown University.

Vera Briscoe recently returned to the staff of the Bureau of Business Research of the University of Kentucky, and will make a study of Kentucky municipal finance under the sponsorship of the University and the Kentucky Municipal League.

R. P. Brooks, after many years' service as Dean of the College of Business Administration of the University of Georgia, has been named Dean of Faculties and will take up his new duties in September.

J. Douglas Brown has been appointed Dean of the Faculty at Princeton University commencing July, 1946. He will continue as Director of the Industrial Relations Section as well as professor in the department of economics.

Leslie A. Bryan, Franklin Professor of Transportation at Syracuse University, is on leave of absence while acting as director of the recently created Bureau of Aviation for the State of New York.

Lawrence R. Chenault was visiting professor of economics at the College of William and Mary during the spring semester.

Ralph E. Conwell, professor of economics at the University of Wyoming, is traveling in Mexico, observing social and economic conditions.

Garfield V. Cox has been appointed dean of the School of Business at the University of Chicago.

Elizabeth Armour Curtiss, formerly of the department of economics at Wellesley College, has joined the department of economics and sociology at Iowa State College as associate professor of consumption economics.

Lawrence A. Cusack of the Bureau of Internal Revenue and formerly associate professor of economics at Creighton University is conducting a course in financial statement analysis in the Graduate School of Social Science, The Catholic University of America.

W. H. Delaplane, assistant professor of economics at Duke University, is on leave of absence serving as visiting professor of economics for the year 1944-45 at the University of Paraguay, at Asuncion.

Ralph L. Dewey, formerly principal transportation economist with the Department of Agriculture and the War Food Administration, has been appointed professor of economics at Iowa State College, where he is in charge of teaching and research in transportation and public utility economics.

Kenneth Duncan, professor of economics, Pomona College, will teach during the summer session of 1945 at the University of California, Los Angeles.

Howard S. Ellis, professor of economics at the University of California, is on leave of absence while serving as assistant director of research for the Board of Governors of the Federal Reserve System, Washington.

Clarence W. Fackler has been promoted from associate professor to professor of accounting in the Graduate School of Business Administration, New York University, and has also been appointed to the headquarters staff of the National Association of Cost Accountants as a research associate.

William J. Fellner, associate professor of economics at the University of California, has been on leave of absence, working at the Division of Tax Research of the Treasury Department.

Morris Friedberg, professor of economics at Simmons College, is on leave of absence while serving in the Division of Monetary Research of the Treasury Department.

Frank D. Graham of Princeton University has been named Walker Professor of International Finance.

William S. Hopkins has been advanced from associate professor to professor of economics at Stanford University.

Arthur T. Jacobs has resigned from the staff of Labor Relations Associates, Inc., Chicago, to become labor economist for the National Foremen's Institute and editor of the *Executives' Labor Letter*. He recently conducted a course in trade unionism in the United States at the School of Commerce, De Paul University.

Thomas H. Kelly has been appointed professor at Natal University College, Durban, South Africa.

Marshall D. Ketchum, associate professor, College of Commerce, University of Kentucky, will be professorial lecturer in finance at the School of Business, University of Chicago, during the summer quarter of 1945.

Richard L. Kozelka, formerly acting dean, was appointed to the post of dean of the School of Business Administration at the University of Minnesota by the Board of Regents in March.

C. E. Landon, assistant professor of economics at Duke University, is on leave of absence serving as senior economist with the steel division of the Office of Price Administration.

Richard A. Lester, associate professor of economics at Duke University, has been appointed chairman of the Southern Textile Commission of the War Labor Board.

Lin Lin was transferred in August, 1944, to Mexico as the director of the Chinese News Service.

J. A. Livingston has transferred from the War Production Board to the Office of War Mobilization and Reconversion, Washington.

Meno Lovenstein is now on the faculty of the Army Industrial College, teaching courses in procurement, termination and preparing courses on mobilization and demobilization.

C. Ward Macy of Coe College will teach in the department of economics at Northwestern University during the summer quarter of 1945.

Archibald M. McIsaac, James G. Smith and John W. Cadman, Jr., of the department of economics and social institutions of Princeton University, have been engaged since September, 1944, on a study of the post-war position of the American textile industries for the Textile Research Institute, Inc., on a grant from the Textile Foundation.

Glenn D. Morrow, formerly research assistant in the Bureau of Business Research of the University of Kentucky and now a staff member of the American Financial Mission to Iran, plans to return to the Bureau as a research associate.

Mrs. Charlotte Muller of the department of economics and sociology at Barnard College will conduct a course on the development of capitalistic institutions in 1945-46.

Thelma Stein Nason is now a representative of the United Electrical, Radio and Machine Workers of America, in Newark.

James C. Nelson has transferred from the Office of Defense Transportation to the Bureau of Foreign and Domestic Commerce, where he is chief of the transportation unit.

William A. Nielander, associate professor of marketing on leave from the University of Texas, resigned recently as head economist for the Office of Coördinator of Inter-American Affairs, and is now associated with the American Institute of Coöperation as director of business administration.

F. Taylor Ostrander has resigned as economic consultant to the Pittsburgh Plate Glass Company and become intelligence officer for the Foreign Economic Administration, attached to the London Mission.

Lucia Peterson, formerly of Park College, is now a research assistant in the Bureau of Business Research of the University of Kentucky.

Frank C. Pierson of Swarthmore College is serving as vice chairman of the Regional War Labor Board in Philadelphia.

Jewell J. Rasmussen of the department of economics of the University of Utah, has been promoted from instructor to assistant professor.

Lloyd G. Reynolds, professor of economics at Johns Hopkins University, is serving as consultant to the Bureau of the Budget on the preparation of historical records of the wartime labor activities of the federal government.

Charles A. Rovetta has been promoted to associate professor of business economics and also appointed director of the restaurant administration program in the School of Business of the University of Chicago.

Raymond J. Saulnier, assistant professor of economics at Barnard College, Columbia University, will return to his post beginning with the academic year 1945-46, after two years' leave of absence, working with the Naval School of Military Government and Administration at Columbia University.

Geoffrey S. Shepherd, professor of agricultural economics at Iowa State College, received a five months' leave of absence beginning March 1, to accept a temporary position as chief economist for the food price division of the Office of Price Administration, Washington.

Robert S. Smith, assistant professor of economics at Duke University, will serve as visiting professor of economics for the summer of 1945 at the University of Costa Rica at San Jose.

William H. Spencer has resigned as dean of the School of Business, University of Chicago, to accept the Hobart W. Willams distinguished service professorship and will teach in the School of Business, the Law School, and the Division of Social Sciences.

Henry W. Spiegel, a member of the economics faculty of the Graduate School of Social Science, The Catholic University of America, has been awarded a fellowship by the John Simon Guggenheim Memorial Foundation.

Wolfgang F. Stolper is on leave of absence from Swarthmore College to participate in the Strategic Bombing Survey in Germany.

J. Wilner Sundelson, on leave of absence from Rutgers University, has been appointed chief of the Northern European Division of the Foreign Economic Administration, after serving as a member of the Mission for Economic Affairs of the American Embassy in London and representative of the Foreign Economic Administration in Belgium and Luxembourg.

Ralph J. Watkins is now with Dun and Bradstreet, Inc., in New York, as director of business studies, marketing and research service, after a year's service with Allied Force Headquarters in Algiers, where he headed the Lend-Lease Mission to French North Africa.

Frederick V. Waugh, assistant deputy director of the Office of Marketing Services of the War Food Administration, spent a month this spring at Iowa State College as visiting research professor in the department of economics and sociology, studying food marketing.

Clair Wilcox of Swarthmore College is acting as consultant in the office of William L. Clayton, Assistant Secretary of State.

Edward F. Willett, associate professor of economics is taking a year's leave of absence from Smith College to act as research assistant to the Secretarv of the Navy.

Freda Witherow is a research assistant in the Bureau of Business Research of the University of Kentucky.

Dean A. Worcester, assistant professor of economics at Louisiana State University, is on leave of absence for the third quarter of the academic year, while serving in the Louisiana Department of Public Works.

Viola Wyckoff, formerly of Vassar College, has joined the department of Economics at Wellesley College as assistant professor.

DAVID KINLEY

Fifteenth President of the American Economic Association, 1913

David Kinley was born August 2, 1861, in Dundee, Scotland. He died at the age of 83 at Urbana, Illinois, on December 3, 1944. Dr. Kinley came to the United States with his father in 1872. Following his graduation from Phillips Academy at Andover, he attended Yale, receiving the A.B. degree in 1884. In 1890, after having served as principal of a high school at North Andover, Massachusetts, he went to John Hopkins, where he studied with Richard T. Ely and Woodrow Wilson. He accompanied Professor Ely to the University of Wisconsin in 1892 and in 1893 received his Ph.D. degree from that institution.

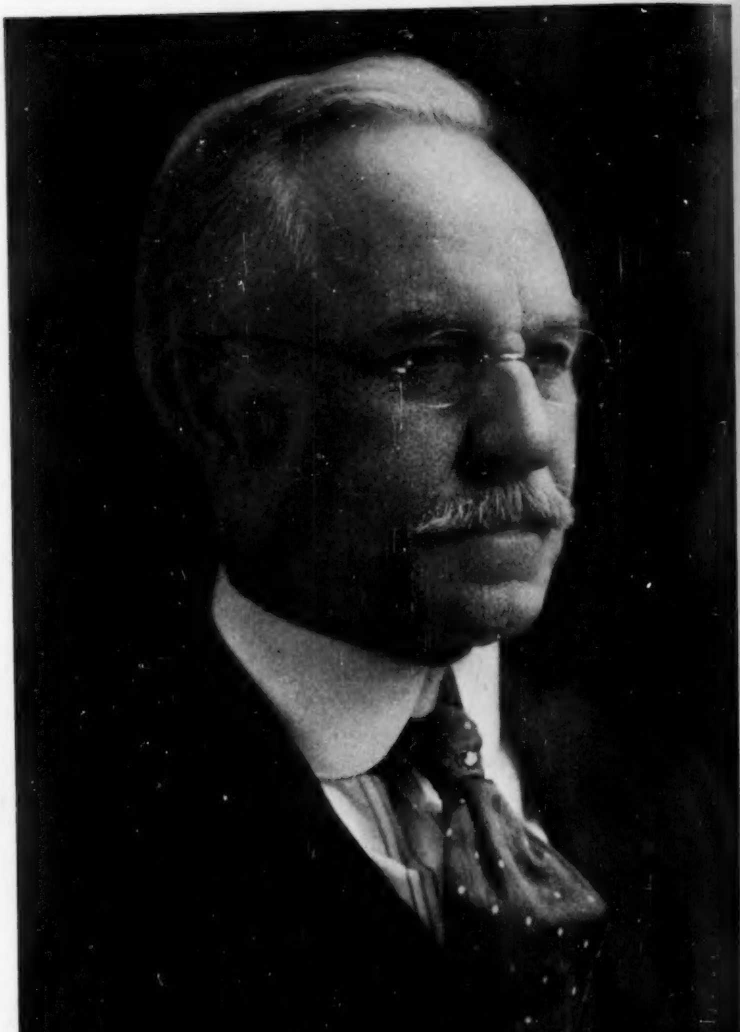
Honorary LL.D. degrees were conferred upon Dr. Kinley by Illinois College (1908), University of Wisconsin (1918), University of Nebraska (1921), and Yale (1924).

In 1893 Dr. Kinley accepted a post at the University of Illinois, where he served as assistant professor of economics, professor from 1894, department head, 1894-1915, dean of the college of Literature and Arts, 1894-1906, founder and director of the training for business courses, 1902-15, dean of the Graduate School, 1906-19, vice-president, 1914-19, acting president, 1919, president, 1920-30, and president emeritus until his death.

During his active career at the University of Illinois Dr. Kinley maintained a lively interest in local and state affairs, where he served on many boards and commissions, and also in foreign affairs. He traveled widely and served his country as delegate and representative to several conferences and congresses.

Dr. Kinley's chief interests in the field of economics were money and banking and government regulation of business. The title of his presidential address in 1913 was, "Renewed Extension of Government Control of Economic Life." His chief publications are: *The Independent Treasury of the United States* (1893), *Monograph on Trusts* (1899), *Money* (1904), monographs prepared for the National Monetary Commission (1910), *Government Control of Economic Life and Other Addresses* (1936). He was editor of the *Preliminary Studies of the War* of the Carnegie Endowment for International Peace, Division of Economics and History (1913-22). In 1930 he was awarded the Newman medal.

Number 15 of a series of photographs of past presidents of the Association.



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